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JUNE 29, 2012

I. Introduction.

1. I hold the Everett D. Reese Chair of Banking and Monetary Economics at the Ohio State University. I am also Director of the Dice Center for Research in Financial Economics at the Ohio State University and a Research Associate of the National Bureau of Economic Research in Cambridge, Massachusetts. Since receiving my Ph.D. in Economics from the Massachusetts Institute of Technology in 1980, I have taught at the Massachusetts Institute of Technology, the University of Rochester, the University of Chicago, and the Ohio State University. I was a Bower Fellow at the Harvard Business School from 1996 to 1997. An up-to-date resume and list of testimony are attached as Appendices A and B, respectively.

2. I have previously submitted two reports in this litigation. My first report, submitted on May 28, 2010 (“Stulz May 2010 Report”), evaluated Plaintiff’s claims as to materiality, reliance, and price impact. My second report, submitted on October 22, 2010 (“Stulz October 2010 Report”), reviewed and rebutted the opinions expressed in the expert report of Chad Coffman submitted on August 23, 2010 (“Coffman August 2010 Report”).¹ In these prior reports, I demonstrated that the limitations of structured finance ratings — and potential conflicts of interest resulting from the issuer-pay model — were well known publicly prior to and during the Liability Period.² I further opined that Plaintiffs provided no scientific evidence that the alleged misstatements were economically material, nor have they shown that there were disclosures that corrected alleged misstatements and caused investor losses. I continue to hold the opinions expressed in the Stulz May 2010 Report and Stulz October 2010 Report.

3. I have been asked by the attorneys for Moody’s Corporation (“Moody’s”) to review and respond to the analyses and opinions of Plaintiffs’ expert, Mr. Coffman, as expressed in his report in this matter dated May 25, 2012 (“Coffman May 2012 Report”). I was also asked to offer an opinion as to whether there is reliable evidence, based upon the stock price reactions to the purported “Loss Causation Events” identified in Mr. Coffman’s report, to conclude that the

¹ Mr. Coffman also submitted a report on November 5, 2010 (“Coffman November 2010 Report”). The Stulz May 2010 Report and the Stulz October 2010 Report are attached as Exhibit 1 and Exhibit 2, respectively.

² The Court ruled that a class could not be certified in this matter. (In Re: Moody’s Corporation Securities Litigation, Memorandum Decision and Order of Judge George B. Daniels, U.S.D.J., filed March 31, 2011.) Reference to the Class Period in the Stulz May 2010 Report and Stulz October 2010 Report can be read to be analogous to references to the “Liability Period” used in the Expert Report of Chad Coffman, CFA, submitted May 25, 2012.

alleged misstatements were economically material, inflated Moody's stock price, and caused losses to Moody's shareholders.

4. The analyses and opinions expressed in this report are my own. I am being compensated for my time and services at the regular hourly rate of \$750 I charged when I was initially retained on this matter. I also receive periodic compensation from Cornerstone Research, the firm that assists me on this matter and with which I have a longstanding relationship. Those payments are made entirely at Cornerstone's discretion, and my understanding is that they are based generally on my services for and work with Cornerstone, including, in particular, the level of fees to Cornerstone generated on matters where they provide support to me. I understand that those payments are in no way based on the content of my opinions or the outcome of any matter.

II. Summary of opinions and outline of report.

5. The Coffman May 2012 Report does not present any fundamentally new economic evidence, analyses, or arguments, but rather simply repackages points that were already discussed extensively in the Coffman August 2010 Report and Coffman November 2010 Report, both of which were filed prior to the Court's denial of class certification. For example, the present Coffman May 2012 Report focuses on a set of four "Loss Causation Events" and argues that Moody's stock price reactions to these events are evidence of loss causation and materiality. I will discuss these events extensively below. However, it is important to note that these events were all addressed in my previous reports, and the thrust of Mr. Coffman's arguments with respect to these dates has not changed markedly since the class certification stage of this matter.

6. As I explained in my earlier reports, there is no evidence that the alleged misrepresentations were associated with an abnormal increase in the stock price, and therefore there is no evidence that these alleged misrepresentations inflated Moody's stock price when they were made.³ My prior reports also noted there is no evidence that Moody's stock price fell in a statistically significant manner due to disclosures that corrected or revealed the alleged misrepresentations (as opposed to revealing other information unrelated to the alleged

³ See, for example, Stulz May 2010 Report, ¶ 63.

misrepresentations).⁴ The Court ultimately agreed with me on these points when ruling on class certification.⁵

7. According to Mr. Coffman, “Plaintiffs allege that Moody’s made material misrepresentations and omissions upon which investors relied,” and “[t]hese alleged misstatements and omissions related to Moody’s independence and its rating methodology.”⁶ The alleged misrepresentations include Moody’s reassuring investors that potential conflicts of interest were adequately managed in annual reports and other press releases, promoting Moody’s independence in its Code of Conduct, and stating that loan originator quality was assessed in the ratings process.^{7,8} In summarizing, Mr. Coffman states that he interprets “Plaintiffs’ liability theory to be that Moody’s knew or was reckless in not knowing that when it came to rating structured finance securities, Moody’s had succumbed to conflicts of interest and rather than being a skeptical gatekeeper, had adopted ratings methodologies that understated the credit risk of huge swaths of complex securities tied to subprime mortgages.”⁹

8. Mr. Coffman has not pinpointed when inflation entered Moody’s stock price because of these alleged misrepresentations. Indeed, he cannot establish when inflation entered the stock price because, as I demonstrated (and as he conceded) in prior reports, none of the alleged misrepresentations in this matter led to a statistically significant increase in Moody’s stock price.¹⁰ Therefore, there is no evidence that these alleged misrepresentations inflated the stock price when they were allegedly made. In his current report, Mr. Coffman claims that inflation can be created by alleged misrepresentations absent a statistically significant increase in the stock price,¹¹ but according to his own analysis none of the alleged misstatements during the “Liability Period” introduced inflation.¹² He also does not show that inflation was introduced by

⁴ See Stulz May 2010 Report, Section III.B.5; Stulz October 2010 Report, Section IV.B.

⁵ In Re: Moody’s Corporation Securities Litigation, Memorandum Decision and Order of Judge George B. Daniels, U.S.D.J., filed March 31, 2011, pp. 18–20.

⁶ Coffman May 2012 Report, ¶ 24.

⁷ Coffman May 2012 Report, ¶¶ 8, 24–25, 28. Note that all these misstatements have been previously analyzed in the Stulz May 2010 Report and the Stulz October 2010 Report.

⁸ The rating methodology claim is that “Moody’s did not rely on originator information when assessing RMBS, CDOs, and SIVs until after April 2008 even though Moody’s stated on at least two separate occasions, once in 2003 and again in 2007, that it relied on originator and servicer quality in its analysis of loan performance.” (Coffman May 2012 Report, ¶ 28.)

⁹ Coffman May 2012 Report, ¶ 29.

¹⁰ See, for example, Stulz May 2010 Report, ¶ 63; Coffman May 2012 Report, ¶ 42.

¹¹ Coffman May 2012 Report, ¶¶ 42–43, footnote 65.

¹² Coffman May 2012 Report, ¶ 105.

any of the alleged misrepresentations prior to the Liability Period. Therefore, the question of when inflation was introduced into Moody's stock price remains unanswered.

9. Unable to pinpoint how and when inflation was introduced during or before the Liability Period, Mr. Coffman now focuses on a theory involving materialization of an undisclosed risk. He states that Moody's alleged succumbing to conflicts of interest "created a material undisclosed risk that structured finance revenues were unsustainable and that the Company would ultimately be subject to regulatory and legal scrutiny."¹³

10. As a matter of economics, to demonstrate that alleged misrepresentations are economically material and have inflated the stock price, there must be scientific evidence of a statistically significant stock price increase when the misstatements are made, and/or a statistically significant price decline when the truth is revealed and the correction of the alleged misrepresentations is incorporated in the stock price. Further, for investors to have suffered losses as a result of the alleged undisclosed risk, there must be scientific evidence that decreases in the stock price were caused by disclosures or realizations of that specific risk. In other words, it is not sufficient to simply point to some stock price drops in reaction to bad news that could hypothetically be tangentially linked to the allegedly undisclosed risk but could also be caused by many other unrelated factors.

11. In this litigation, the undisclosed risk currently articulated by Plaintiffs and Mr. Coffman is the risk that when the market learned the truth of the alleged fraud: (1) Moody's structured finance revenue would become "unsustainable," (2) the market would learn of ratings errors, (3) and furthermore Moody's would face costly regulatory scrutiny.¹⁴ Mr. Coffman discusses a series of supposed corrective disclosures that he contends demonstrates materialization of the undisclosed risk. However, he has not provided any credible basis for the belief that the information released on these supposed corrective disclosure dates actually resulted from Moody's having systematically compromised its independence, rather than materialization of certain general risk factors that were previously disclosed and were unrelated to the allegations. As I discuss below, it was well-known that Moody's structured finance revenue could increase or fall, that structured finance ratings could be criticized, and that Moody's could be investigated by regulators for a variety of reasons. Moody's itself noted throughout the Liability Period the risk

¹³ Coffman May 2012 Report, ¶ 29.

¹⁴ Coffman May 2012 Report, ¶¶ 6, 29.

that its revenue was sensitive to credit market conditions, the risk that it could be subject to regulatory scrutiny, and the risk that its reputation could be affected by unfavorable rating performances.¹⁵ Mr. Coffman acknowledges that these general risk factors were disclosed and well known in his report.¹⁶

12. I will discuss further in Section III below how Mr. Coffman has failed to show a causal link between the supposed “foreseeable consequences” of the alleged fraud and the alleged misrepresentations.¹⁷ In short, he does not link revenue drops, regulatory scrutiny, or discovery of rating errors to any specific alleged misrepresentation. It is true that during and soon after the Liability Period Moody’s structured finance revenue fell dramatically, Moody’s was subject to regulatory scrutiny, and rating errors within certain structured finance securities were disclosed, but there is no evidence that these events would not have taken place in the absence of the alleged misrepresentations or alleged undisclosed risk. Therefore, none of the market reactions to these events is reliable evidence that realization of the alleged undisclosed risk led to losses for shareholders.

13. The heart of Mr. Coffman’s loss causation analysis is an investigation of the stock price reaction to four sets of alleged curative disclosures, or what he calls the “Loss Causation Events.”¹⁸ The stock price reactions to these specific alleged disclosures are also used by Mr. Coffman to support his conclusion on the materiality of the alleged misrepresentations. However, I will show in Section IV that the stock price movements on the alleged corrective disclosure days cannot be reliably tied to Plaintiffs’ allegations, and could undoubtedly have occurred absent the alleged fraud.

14. Specifically, Mr. Coffman fails to provide any reliable basis to link the alleged misrepresentations, or the purported undisclosed risk created by the alleged misrepresentations,

¹⁵ See, for example, Moody’s Corp., 2006 Annual Report, p. 56: “Unfavorable financial or economic conditions that either reduce investor demand for debt securities or reduce issuers’ willingness or ability to issue such securities could reduce the number and dollar volume of debt issuance for which Moody’s provides ratings services. In addition, increases in interest rates or credit spreads, volatility in financial markets or the interest rate environment, significant regulatory, political or economic events, defaults of significant issuers and other market and economic factors may negatively impact the general level of debt issuance, the debt issuance plans of certain categories of borrowers, and/or the types of credit-sensitive products being offered. A sustained period of market decline or weakness could also have a material adverse effect on Moody’s business and financial results.... For example, a large investment grade default could impact the Company’s reputation and potentially lead to greater regulatory oversight.” See, also, Moody’s Corp., 2005 Annual Report, pp. 53–55; Moody’s Corp., 2007 Annual Report, p. 61.

¹⁶ Coffman May 2012 Report, ¶¶ 49, 51.

¹⁷ Coffman May 2012 Report, ¶ 8.

¹⁸ Coffman May 2012 Report, ¶ 6.

to the stock price drops for any of his four “Loss Causation Events”—August 20, 2007, when Senator Shelby made comments about rating agencies (which the Court explicitly ruled out as a corrective disclosure during the class certification stage);¹⁹ October 24–25, 2007, when Moody’s announced a structured finance ratings revenue drop and reduced earnings guidance on the first day and one equity analyst downgraded Moody’s stock on the next day; May 21–22, 2008, when *The Financial Times* published a news story stating that Moody’s had allegedly tried to hide rating errors on CPDO securities; and October 21–23, 2008, when rating agencies were criticized during certain Congressional hearings. Instead, Mr. Coffman often simply assumes the existence of such a link when conducting his loss causation and materiality analyses.

15. Let me use the negative news from the earnings announcement as an example. Moody’s would likely have announced disappointing earnings guidance during the financial crisis even if none of Plaintiffs’ allegations were true. Consequently, for Mr. Coffman to have a reliable basis to claim that the stock price reaction to poor earnings guidance is evidence of loss causation, he would have to show the stock price would have reacted in a different manner “but-for” the allegations, which he fails to do. In fact, one of the key flaws of Mr. Coffman’s analyses is his failure to analyze how Moody’s stock price would have moved in a “but-for” scenario. Indeed, based on the information released on all of Mr. Coffman’s “Loss Causation Events,” I conclude that there is no reliable causal link between Moody’s stock price reactions on those days and the alleged misstatements, and Moody’s stock price could have reacted in similar manners on those days absent the alleged fraud.

16. In addition, I will show that Mr. Coffman’s analyses are fundamentally flawed and unreliable in several other aspects. In particular, he fails to properly account for confounding events and implicitly assumes that the market for Moody’s stock is inefficient in that it does not incorporate new information quickly, which is in direct contrast with his prior conclusions. An assumption of market inefficiency would undermine Plaintiffs’ prior reliance argument based on the fraud-on-the-market presumption. Additionally, Mr. Coffman uses an inappropriate statistical model that is rejected by the data in his analysis of October 21–23, 2008. I will show that the stock price reaction to the alleged curative disclosures in October 2008 (which occurred

¹⁹ In Re: Moody’s Corporation Securities Litigation, Memorandum Decision and Order of Judge George B. Daniels, U.S.D.J., filed March 31, 2011, p. 19.

after all named Plaintiffs sold their shares of Moody's stock) is not statistically significant when evaluated properly.

17. In summary, my understanding is that a proper analysis showing economic materiality and loss causation should show Moody's stock price was artificially inflated as a result of the alleged misrepresentations, and that the Plaintiffs suffered losses when these alleged misrepresentations were ultimately corrected. My opinion is that Mr. Coffman does not provide any such evidence, because he has not conducted the necessary economic analysis of materiality and loss causation. My analyses of the newly released information and Moody's stock price movements on the alleged disclosure days demonstrate that Mr. Coffman fails to show, and indeed there is no reliable basis for Plaintiffs to conclude, that the alleged misrepresentations inflated Moody's stock price or led to Plaintiffs' losses.

18. Finally, in the last section I will discuss how even assuming that Mr. Coffman has demonstrated materiality and loss causation, which he has not, his calculation of inflation is unreliable. As mentioned above, Mr. Coffman has not articulated a "but-for" scenario specifying what would have been disclosed and when it could have been disclosed. Given that Mr. Coffman fails to pinpoint when and how much inflation was created due to each alleged misstatement during the Liability Period, he simply (and inappropriately) assumes that the stock price responses to a hypothetical earlier disclosure would be the same as the price responses observed on his disclosure days, all of which occurred in the midst of the global financial crisis.

III. Mr. Coffman fails to demonstrate generally that "unsustainable" structured finance ratings revenue, model errors, or regulatory scrutiny during the financial crisis were caused by the alleged misstatements or represent the materialization of the allegedly undisclosed risk.

19. As I demonstrated in the Stulz May 2010 Report, none of the alleged misrepresentations increased the stock price in a statistically significant manner during the Liability Period.²⁰ Mr. Coffman does not dispute this empirical finding. Indeed, Mr. Coffman acknowledges that the alleged misrepresentations were not new information. Rather, he posits, they allegedly

²⁰ Stulz May 2010 Report, ¶ 63.

confirmed what investors already believed.²¹ As a result, even on a conceptual level, it is difficult for Mr. Coffman to argue that the alleged misrepresentations, which contain only stale information, would be economically material to investors and/or create inflation in Moody's stock price. In his May 2012 Report, Mr. Coffman asserts that inflation can be created without new public information and/or a statistically significant increase in the stock price if the company simply continues to state something that ceases to be true,²² and that "the proper method to measure price impact is to observe the decline in price...upon release to the market of the corrective information."²³

20. Thus, both his materiality and loss causation analyses rely on an asserted connection between the allegations related to conflicts of interest (which I understand to be the central issues of this matter) and observed stock price decreases associated with certain news stories during the global financial crisis. Importantly, he has not provided reliable analytical evidence supporting this asserted connection. As I discussed in my previous reports (and Mr. Coffman failed to address previously and in the Coffman May 2012 Report), Mr. Coffman does not actually demonstrate a causal link between the alleged misrepresentations related to conflicts of interest or rating methodologies and the three types of "Loss Causation Events" he identifies, either generally or on the specific days he analyzes.²⁴ Mr. Coffman lists the following types of Loss Causation Events: "information that either specifically (i) reflected the un-sustainability of Moody's structured finance business, (ii) represented the increased probability of costly regulatory, legal, and political scrutiny and/or action, or (iii) disclosed that Moody's committed and covered up errors in ratings."²⁵ I will explain in this section how there is no necessary economic link between these types of events and the allegations in general.

21. According to Mr. Coffman's "materialization of undisclosed risk" theory, Moody's failed to disclose that its structured finance ratings revenue was not sustainable and that it would be subject to regulatory scrutiny due to the alleged fraud. The concept of "unsustainable ratings practices" seems to be a new theory Mr. Coffman introduces, although it is tied to Plaintiffs' prior arguments that Moody's failed to disclose that it had succumbed to conflicts of interest.

²¹ Coffman August 2010 Report, ¶ 85.

²² Coffman May 2012 Report, ¶¶ 42-43, footnote 65.

²³ Coffman May 2012 Report, ¶ 43.

²⁴ See, for example, Stulz May 2010 Report, ¶66; Stulz October 2010 Report, ¶47.

²⁵ Coffman May 2012 Report, ¶ 6.

According to this theory, the allegedly “undisclosed risk” was that Moody’s structured finance ratings practices, and therefore revenue earned from rating structured finance products, were unsustainable once the market detected that in order to please clients, Moody’s had systematically inflated ratings on structured finance securities.²⁶ If this liability theory is correct, when such risk materializes, it must have been revealed that the ratings were incorrect *ex ante* specifically because of Moody’s failure to manage conflicts of interest properly in a “systematic and widespread” manner. In other words, a drop in Moody’s structured finance ratings revenue logically and economically would not constitute materialization of the specific undisclosed risk if the drop was due to reasons unrelated to Moody’s alleged compromised independence. I explain below that a variety of such reasons could and did exist. Similarly, if regulatory actions occurred due to reasons other than revelation of Moody’s alleged succumbing to conflicts of interest, then such events would not represent a materialization of the risk Mr. Coffman specifies and thus economically and logically cannot be used to demonstrate loss causation or materiality.

22. In order to demonstrate economic materiality and loss causation under Plaintiffs’ and Mr. Coffman’s theory, it is critical to establish a reliable causal link between stock price declines and the specific risk created by allegations, which can be illustrated using the hypothetical example Mr. Coffman himself presents in his Figure 1.²⁷ In his example, Mr. Coffman attempts to use the stock price drop in response to a disclosure at time t_2 to assess the price impact of and the inflation created by information allegedly misrepresented earlier at t_1 . In his example, the information is that management had gambled away \$1 billion. Mr. Coffman’s stylized example hinges on the condition that it was revealed at t_2 that management had actually gambled away \$1 billion, and the stock price dropped due to no reasons other than this revelation. This situation is not analogous to the present matter at all. Mr. Coffman provides no reliable basis for the belief that the corrective disclosures he identifies as causing a stock price decline revealed, or were

²⁶ Coffman May 2012 Report, ¶ 6. In deposition, Mr. Coffman clearly stated that Plaintiffs are alleging “widespread and systematic” conflicts, not isolated errors or issues: “A. ... When I read this article I understand it to be, you know, especially later in the article talking about individual circumstances, but, you know, plaintiffs are alleging that it was a widespread and systematic ratings inflation going on at the credit ratings agencies. ... So the distinction I would draw is that this [article] suggests there are certain people that suggest at times Moody’s may have succumbed to a conflict of interest, but it doesn’t suggest to me that there is a widespread and systematic succumbing to the conflict of interest.” (Deposition of Chad Coffman, October 7, 2010, 200:6–201:4).

²⁷ Coffman May 2012 Report, ¶¶ 42–44.

caused by, the alleged truth about Moody's systematic succumbing to conflicts of interest (or any other alleged misstatements).

23. Consider a variation of Mr. Coffman's stylized example which demonstrates the fundamental flaws in his comparison. Suppose that the concealed fact that management gambled \$1 billion away at t_1 introduces the risk that the company's true net worth (which is now \$1 billion less) is more likely to trigger a violation of its existing debt covenants. Suppose further that at time t_2 the company announced that poor economic conditions caused its income to be lower than expected and that as a result of the income shortfall, it had violated one of its bond covenants. In this situation, it is implausible to tie the stock price drop due to the company's announcement at t_2 to the undisclosed loss of \$1 billion at t_1 . This is because debt covenant violations can be caused by a variety of factors, and in this example the covenant violation would have occurred without the gambling loss. Thus, one could not reliably use the mere presence of a stock price drop coincidental with a covenant violation at t_2 to measure the price impact of the gambling loss, or to show that management's gambling loss actually resulted in losses for investors in the company's stock, even if a covenant violation was a foreseeable consequence of the concealed loss.

24. Similarly, with respect to Moody's rating business, there were a myriad of other factors, such as the housing market downturn, the slowing down of economic activity, and eventually the recession and the global credit crisis that naturally caused Moody's structured finance revenue and business prospects to decline and caused its ratings to change, as was mentioned in my prior reports and will be discussed further in this section. Additionally, regulatory scrutiny and/or action can be caused by a host of factors, and Mr. Coffman does not demonstrate that here they resulted from the alleged fraud, as will be touched on generally below and specifically with respect to Mr. Coffman's alleged corrective disclosure days in the next section. In the face of these other factors that could have and did undoubtedly play a role in the "Loss Causation Events," Mr. Coffman has failed to demonstrate a reliable causal link between these events and the alleged misrepresentations.

a. The period of the alleged “Loss Causation Events” coincides with the global financial crisis.

25. A global financial crisis unprecedented in recent times is one key factor that precipitated many of Mr. Coffman’s “Loss Causation Events.” In the Stulz May 2010 Report, I explained that the global financial crisis of 2007–2008 was caused by many interrelated issues and factors that were outside Moody’s control.²⁸ The pre-crisis period was characterized by steady growth of the global economy, sharp growth in financial assets globally, increased capital flows from emerging countries to the U.S., low interest rates, and as a result an ample amount of liquidity and rapid growth of credit. The U.S. government mandate to increase home ownership also helped fuel a real estate boom, as well as the growth in the securitization of mortgage assets into structured finance products.²⁹

26. When house prices started to decline in 2006, default rates increased for mortgages, especially the subprime mortgages originated in recent years;³⁰ indeed the unprecedented default rate for these recent-vintage subprime mortgages surprised the market and was one of the key early events preceding the crisis.³¹ Structured finance securities were perceived to be riskier than previously thought when the delinquency and default experience of the underlying assets evolved outside the range that was previously expected. Furthermore, forecasting models used in assigning the initial ratings were no longer appropriate given the unexpectedly high default rates. For example, consider one type of structured product that Plaintiffs’ allegations focus on, RMBS (residential mortgage-backed securities). RMBS backed by recent-vintage subprime mortgages lost value and their creditworthiness deteriorated as the residential mortgages on which they were based suffered surprisingly high delinquencies and defaults. There is a clear causal chain from declining home prices to mortgage defaults to credit quality deterioration of RMBSs, and

²⁸ See extensive discussion of this point in the Stulz May 2010 Report, Section III.B.1.

²⁹ Stulz May 2010 Report, ¶¶ 67–69.

³⁰ Research has shown that housing prices are one of the most important factors in predicting mortgage default. See, for example, Yuliya Demyanyk and Otto Van Hemert (2011), “Understanding the Subprime Mortgage Crisis,” *The Review of Financial Studies*, 24 (6): 1848–1880; Kristopher Gerardi, Andreas Lehnert, Shane Sherlund, and Paul Willen (2008), “Making Sense of the Subprime Crisis,” *Brookings Papers on Economic Activity*, Fall 2008, pp. 69–145.

³¹ “The rapidity of the decline in the subprime mortgage market has likely taken most market participants and observers by surprise.” (“A Simple Guide to Subprime Mortgages, CDO, and Securitization,” *Citi*, April 13, 2007.) See, also: Laurie S. Goodman, Shumin Li, Douglas J. Lucas, Thomas A. Zimmerman, and Frank J. Fabozzi (2008), “Subprime Mortgage Credit Derivatives,” *John Wiley & Sons, Inc.*, pp. 301–308; Stulz May 2010 Report, ¶ 71.

Mr. Coffman fails to show that Moody's structured finance ratings practices affected the initial step of that causal chain.

27. One cannot simply blame the securitization process generally, or Moody's role in issuing allegedly favorable ratings to structured finance products, as the root cause of the crisis, or of the boom (and subsequent bust) in housing prices. As noted in the Stulz May 2010 Report, "the spectacular growth of house prices followed by a crash did not take place everywhere in the United States."³² Yet, securitization was available throughout the United States, and mortgage loans from around the country were securitized into RMBS, so it is clear that the mere ability of banks to securitize loans did not drive drastic house price appreciation. Rather, the level of house price appreciation, and of subsequent mortgage default, was driven by regional factors, not one overarching nationwide effect catalyzed by Moody's ratings practices. This point is further demonstrated by the fact that so-called real estate bubbles also occurred in foreign countries where the securitization market was relatively undeveloped but interest rates were low and credit was abundant.³³ In these other countries, real estate prices fell sharply, mortgage lenders and banks experienced heavy losses (as did investors), and recessions ensued, but clearly this was not catalyzed by Moody's structured finance ratings practices. It is thus hard to reconcile these patterns with the simple view that securitization was the cause of the housing boom and ensuing mortgage crisis.

28. The Stulz May 2010 Report described how the credit crisis began with a downward spiral where investors lost confidence and suffered mark-to-market losses on asset-backed securities, which led to "fire sales" for leveraged investors that put further pressure on prices and led to growing illiquidity.³⁴ As liquidity dried-up in the second half of 2007 and further in 2008, issuance activities in structured finance as well as in other asset markets dropped.³⁵ As a result, Moody's revenue and earnings dropped. Notably, a negative trend in revenue and earnings could

³² Stulz May 2010 Report, ¶ 70 referencing R. Glenn Hubbard and Christopher J. Mayer (2009), "The Mortgage Market Meltdown and House Prices," *The B.E. Journal of Economic Analysis & Policy*: v9(3), Article 8, pp. 1–7.

³³ R. Glenn Hubbard and Christopher J. Mayer (2009), "The Mortgage Market Meltdown and House Prices," *The B.E. Journal of Economic Analysis & Policy*: v9(3), Article 8, pp. 1–7; John B. Taylor (2009), "Getting Off Track: How Government Actions and Interventions Caused, Prolonged, and Worsened the Financial Crisis," *Hoover Institution Press*, 1st Edition, pp. 7–10.

³⁴ Stulz May 2010 Report, ¶ 73.

³⁵ Stulz May 2010 Report, ¶¶ 71–74; "Q3 2007 Moody's Corporation Earnings Conference Call – Final," *Voxant FD Wire*, October 24, 2007. Exhibit 4 shows that although Moody's revenue in structured finance sectors declined, so did revenue in other sectors.

also be seen for many other firms in the midst of the credit crisis and recession. Exhibit 3 shows that for Q3 2007, out of 91 firms in the S&P 500 Financial Index, excluding Moody's, 36% (57%) showed year-over-year revenue (net income) declines. In later quarters, such as Q4 2008, the percentage further increased to 74% (77%).

29. In the Stulz May 2010 Report, I discussed the fact that Moody's revenue growth was largely driven by economic factors related to the general credit environment as well as factors specific to each sector. As previously mentioned, Moody's itself noted these factors throughout the Liability Period. In addition, Exhibit 4 shows a high correlation between the issuing activities in the U.S. credit market and Moody's ratings revenue.³⁶ To forecast Moody's revenue growth, equity analysts use debt issuance as a critical input and recognize the importance of the exogenous credit-related factors in each segment. The list of excerpts below from analyst reports throughout (and after) the Liability Period demonstrates how Moody's ratings revenue has always been impacted by a variety of different economic factors that are unrelated to the alleged misstatements or alleged "unsustainable ratings practices:"

- a. In February 2006, a UBS analyst recognized that "Moody's derives a significant amount of revenue from structured finance products, including ABS and MBS products which are linked to the overall health of the housing markets. If the housing market cools and growth slows, this could have a negative impact on the issuance of mortgage related securitized products."³⁷
- b. A Goldman Sachs analyst commented in June 2006 that "[g]iven the very favorable interest rate backdrop in recent years, Moody's has enjoyed something of a 'perfect storm' in recent years of declining rates, an active M&A market, healthy corporate capital spending and an extraordinarily robust housing market, all of which have driven very healthy growth in new issue bond volumes, particularly in the high-profit structured finance market.... Based on quarterly data since 1997, we note a 90% correlation between Moody's quarterly ratings revenues and U.S. new issue dollar bond volumes."³⁸

³⁶ Exhibit 4 is originally presented as Exhibit 14 to the Stulz May 2010 Report.

³⁷ "Non-Operating Items Provide Upside to 4Q," *UBS Investment Research*, February 6, 2006.

³⁸ "Moody's Investor day preview," *Goldman Sachs*, June 5, 2006.

- c. Given the concerns over the subprime mortgage market in early 2007, an analyst from Credit Suisse commented in February 2007 that “[w]e’d be sellers of MCO in the near-term but continue to believe the long-term opportunities for profit growth are substantial given the innovation we expect in the debt markets and growth from international opportunities.... [E]bbs and flows in things out of its control can have a significant impact on growth and profitability and MCO can only do so much to counterbalance their impact. We believe this is one of those times (although we’ll leave it to the credit analysts to make the ‘credit bubble’ call) and thus advise investors to wait on the sidelines until numbers or sentiment come down significantly enough to build in the ‘07 and ‘08 implications from subprime and the potential spillover into the rest of the debt markets.”³⁹
- d. A Merrill Lynch analyst stated in April 2007 that “[w]e think it is likely that MCO’s revenue growth will perform more in line with its long-term target, especially as some of the factors fueling the dramatic growth in the past few years dissipate, noticeably the booming housing market in the US. Credit spreads do remain benign, but the risk seems to be on the downside.”⁴⁰
- e. A Morgan Stanley analyst also commented in June 2007 on how Moody’s could be affected by an adverse widening of credit spreads, which did not seem likely at that point, noting that “[t]he underlying secular growth story at MCO, in our view, remains intact despite the recent turmoil in the credit markets. MCO’s stock is discounting an overly bearish scenario in which the credit markets seize up and debt issuance across the board comes to an abrupt halt,” and that “[b]arring a significant spike in interest rates or widening of credit spreads over a short period of time, we do not expect a collapse in MCO’s revenue growth.”⁴¹
- f. In October 2007, before the announcement of Moody’s Q3 2007 earnings, a JPMorgan analyst stated that “[g]iven that parts of the credit markets screeched to a virtual standstill in July and August owing to liquidity concerns and general risk

³⁹ “Downgrading to Underperform, Price Target \$64,” *Credit Suisse*, February 26, 2007.

⁴⁰ “Lower to Sell; unfavorable risk/reward,” *Merrill Lynch*, April 18, 2007.

⁴¹ “Sub-prime Issues Manageable; Buying Opportunity,” *Morgan Stanley*, June 28, 2007.

aversion, we expect MCO to report a sharp sequential deceleration in results in 3Q07.”⁴²

- g. In November 2007, an analyst from Friedman, Billings, Ramsey & Co., Inc. (who Mr. Coffman cites in his report) commented that “we believe that several powerful, durable secular trends, particularly globalization, disintermediation, securitization, and financial innovation, put the wind at Moody’s back long term, although short-term headwinds exist today.... Although ratings revenue growth will probably be negative over the next year as credit markets normalize, we believe that Moody’s has a variety of attractive long-term growth opportunities, such as deeper penetration of international markets, new product development, and tuck-in acquisitions.”⁴³
- h. An analyst from Citi issued a report in December 2007 which noted, “[i]n our view, an investment in MCO represents an investment in the long-term growth of the debt capital markets, both in the US and globally. Some securitization will be dampened by the recent credit market sell-off, but we believe it will persist as a longer-term trend as financial institutions seek to enhance their asset-gathering capabilities.... In the past several months, the fixed income markets have weakened, employment growth is threatening to slow, oil is reaching new highs, the credit markets have seized. While economic downturns can drive debt issuance, the current lack of fluidity in the market and widening spreads has lead [*sic*] to significant paper losses upon mark to market. These market conditions may lead to certain [structured] products falling out of favor, and the development of new types of CDOs and derivatives.”⁴⁴
- i. A Jefferies & Company analyst stated in May 2008 that “[w]e are bullish on MCO at current levels despite the fact the firm is still faced with unprecedented credit market headwinds. We view the current slowdown in credit rating revenues as a cyclical, not a structural issue, and as liquidity returns to the credit markets throughout 2009, we expect Moody’s growth trajectory to also return.

⁴² “Sharp Deceleration Expected in 3Q; Issuance Picked Up in Sept After Hiatus in July/Aug; Adj Ests.,” *JPMorgan*, October 15, 2007.

⁴³ “Dropping Coverage,” *FBR Research*, November 5, 2007.

⁴⁴ “Iceberg Dead Ahead? — Initiating at 2H/\$46 target,” *Citi*, December 12, 2007.

While it's tough to call the bottom for the credit markets, it appears that debt issuance could begin to loosen up as the year progresses. Whether or not a recovery occurs, we believe the long-term prospects for Moody's remain strong, and we believe Moody's high operating leverage will allow MCO to rebound whenever liquidity does return to the credit markets."⁴⁵

- j. A William Blair & Company analyst voiced his confidence in Moody's long-term prospects in December 2008, after the last purported corrective disclosure: "[w]e believe Moody's, a leading global provider of credit ratings and related analytics, is an ideal vehicle for investing in the eventual thawing of global credit markets. We believe that Moody's competitive stature and franchise will be relatively unchanged from what it has been the past 108 years."⁴⁶

30. Furthermore, contrary to what one would derive from Mr. Coffman and Plaintiffs' theory on "unsustainable ratings practices" and compromised independence in a "systematic and widespread" manner, the market activities (and rating revenue) didn't fall across geographic areas and asset classes all at once when Moody's alleged misrepresentations were supposedly revealed to the market. Mr. Coffman contends that Moody's independence and integrity were especially important to the company's business prospects. It stands to reason, then, that were the market to learn that ratings were inflated and independence was compromised in a systematic manner, Moody's business would suffer across the board. However, this is not what happened. Mr. Coffman contends that Moody's Q3 2007 earnings release on October 24, 2007, which showed a decline in U.S. structured finance revenue, conveyed some new information about the alleged fraud. Yet despite the weakness in the U.S. market in Q3 2007, Moody's international structured finance revenue *grew* by 10% year-over-year that quarter, including a 32% increase from RMBS reportedly due to the absence of a severe housing downturn in Europe at that point in time.⁴⁷ Even in Q3 2008, when U.S structured finance decreased 65%, the European market saw growth in ABS and RMBS as banks took advantage of a favorable arrangement with the

⁴⁵ "Initiating with a Buy; MCO Well Positioned for Uptick in the Credit Markets," *Jefferies & Company, Inc.*, May 13, 2008.

⁴⁶ "Best Picks for 2009 and the Next Three to Five Years," *William Blair & Company*, December 2, 2008.

⁴⁷ Stulz May 2010 Report, ¶ 97, footnote 144, referencing "Q3 2007 Moody's Corporation Earnings Conference Call – Final," *Voxant FD Wire*, October 24, 2007.

European Central Bank to securitize assets.⁴⁸ Interestingly, by the end of 2008, the European Central Bank and other central banks, including the U.S. Federal Reserve, still relied on Moody's ratings for structured finance securities to determine their eligibility as collateral for financing programs, suggesting that they did not view ratings as systematically tainted or wrong.⁴⁹

31. Another example of the divergence in performance across types of securities is seen by comparing Moody's rating revenue in RMBS versus CMBS (commercial mortgage backed securities). The residential and commercial real estate markets had distinct trajectories: As shown in Exhibit 5, commercial real estate prices dropped later than residential prices, and the commercial delinquency rate increased alongside the commercial price drop and noticeably later than the increase in (subprime) residential delinquency rates. Moreover, as shown in Exhibit 6, while the RMBS sector exhibited dramatic increases in downgrade rates in 2007 and 2008 as the housing prices declined, the downgrade rates for CMBS in 2007 was the lowest since 2002, and that of 2008 was on par with those from 2002 to 2005.⁵⁰

32. Correspondingly, the projected growth of Moody's RMBS rating revenue versus CMBS rating revenue also followed different paths, as shown in Exhibit 7. As early as the beginning of the Liability Period, Moody's projected a "high teens percent *decline* from 2005 to 2006 in revenue from [U.S. RMBS], including home equity securitization," while anticipating double-digit year-over-year *growth* in domestic CMBS.⁵¹ A year-over-year *decline* in U.S. RMBS

⁴⁸ "Q3 2008 Moody's Corporation Earnings Conference Call – Final," *Voxant FD Wire*, October 29, 2008.

⁴⁹ In a November 2008 report on monetary policy, the European Central Bank reiterated its policy of relying on Moody's as one of four external credit assessment institutions (ECAIs) whose ratings were used to assess whether asset-backed securities were eligible to be bought and sold under the Bank's liquidity-raising programs. ("The Implementation of Monetary Policy in the Euro Area," European Central Bank, November 2008, Sections 6.1, 6.3; "Eurosystème credit assessment framework (ECAf)," European Central Bank Website, <http://www.ecb.int/mopo/assets/ecaf/html/index.en.html>, accessed on May 24, 2009.)

In addition, the Federal Reserve Bank announced on November 25, 2008 the Term Asset-Backed Securities Loan Facility Program (TALF), which was designed to lend up to \$200 billion to owners of asset-backed securities collateralized by consumer and small business loans, but only if the securities met certain rating criteria from two or more nationally recognized statistical rating organizations ("NRSRO"), such as Moody's. ("Federal Reserve announces the creation of the Term Asset-Back Securities Loan Facility," *FRB: Press Release*, November 25, 2008; "Term Asset-Backed Securities Loan Facility (TALF) Terms and Conditions," Federal Reserve Board Website, <http://www.federalreserve.gov/newsevents/press/monetary/monetary20081125a1.pdf>, accessed June 27, 2012.)

⁵⁰ The wave of downgrades for CMBS did not occur until the first quarter of 2009, which can be explained by the impact of an unprecedented drop in economic activity and deepening of the crisis following the Lehman Brothers bankruptcy. ("U.S. CMBS and CRE CDO Q1 2009 Surveillance Review" *Moody's Investors Service*, May 13, 2009.)

⁵¹ "Q4 2005 Moody's Corporation Earnings Conference Call – Final," *Voxant FD Wire*, February 3, 2006 (emphasis added). Management also mentioned the "early warning signs" in the RMBS sector: "First of all, we are seeing some smaller transaction sizes, which may imply that the stock of assets available for securitization is being worked

revenue was projected by the management in almost every following quarter before the end of the Liability Period according to Moody's market outlook for mortgage securitization activities (Exhibit 7).⁵² Indeed, according to Exhibit 8.A, RMBS securitization (including subprime) peaked in Q4 2005 and started to decline in 2006.⁵³ In comparison, Moody's projected strong growth in U.S. CMBS revenue in each quarter during the Liability Period, even in Q3 2007, when actual RMBS revenue had a 52% drop.⁵⁴ This contrast again shows that ratings revenue was determined by a variety of factors including market-wide forces as well as the unique dynamics of different asset sectors where Moody's operated. If revenue fell because the market learned that Moody's independence was compromised in a "systematic and widespread" manner, Mr. Coffman fails to explain why rating revenue did not fall across the board *all at once* given the importance of reputation to Moody's ratings business that he stresses in his report, and why ratings revenue of certain sectors was projected to decline as early as the beginning of the Liability Period.

33. Mr. Coffman acknowledged in his August 2010 Report that Plaintiffs are not claiming that Moody's caused the financial crisis, or that Moody's was not affected by the crisis.⁵⁵ However, in the present May 2012 Report, he cites from several articles which comment (in retrospect) on the high ratings given to subprime securities as one of the catalysts for the

through. And we are also seeing some traditionally prime mortgage lenders securitizing more assets that are coming from the sub-prime sector. And at least by historical measures, the move down into more sub-prime activity would indicate that we are in the later stages of the most active part of the residential mortgage securitization market."

("Q1 2006 Moody's Corporation Earnings Conference Call – Final," *Voxant FD Wire*, April 26, 2006.)

⁵² This is the case except for in Q3 2006, when management forecasted RMBS rating revenue to be flat compared with 2005. ("Q1 2006 Moody's Corporation Earnings Conference Call – Final," *Voxant FD Wire*, April 26, 2006; "Q2 2006 Moody's Corporation Earnings Conference Call – Final," *Voxant FD Wire*, August 2, 2006; "Q3 2006 Moody's Corporation Earnings Conference Call – Final," *Voxant FD Wire*, October 25, 2006; "Q4 2006 Moody's Corporation Earnings Conference Call – Final," *Voxant FD Wire*, February 7, 2007; "Q1 2007 Moody's Corporation Earnings Conference Call – Final," *Voxant FD Wire*, April 25, 2007; "Q2 2007 Moody's Corporation Earnings Conference Call – Final," *Voxant FD Wire*, August 1, 2007; "Q3 2007 Moody's Corporation Earnings Conference Call – Final," *Voxant FD Wire*, October 24, 2007.)

⁵³ Exhibit 8.A is originally presented as Exhibit 2 to the Stulz May 2010 Report.

⁵⁴ "Q1 2006 Moody's Corporation Earnings Conference Call – Final," *Voxant FD Wire*, April 26, 2006; "Q2 2006 Moody's Corporation Earnings Conference Call – Final," *Voxant FD Wire*, August 2, 2006; "Q3 2006 Moody's Corporation Earnings Conference Call – Final," *Voxant FD Wire*, October 25, 2006; "Q4 2006 Moody's Corporation Earnings Conference Call – Final," *Voxant FD Wire*, February 7, 2007; "Q1 2007 Moody's Corporation Earnings Conference Call – Final," *Voxant FD Wire*, April 25, 2007; "Q2 2007 Moody's Corporation Earnings Conference Call – Final," *Voxant FD Wire*, August 1, 2007; "Q3 2007 Moody's Corporation Earnings Conference Call – Final," *Voxant FD Wire*, October 24, 2007.

⁵⁵ Coffman August 2010 Report, ¶ 101.

subprime boom.⁵⁶ Thus, Mr. Coffman suggests that “the unsustainable growth in subprime structured finance revenue (and hence market value) cannot legitimately be viewed as simply an industry effect divorced from Moody’s rating practices.”⁵⁷

34. To the extent Mr. Coffman now believes that the subprime crisis was not a market or industry phenomenon “divorced” from the allegations, and thus Moody’s alleged misrepresentations were *partially* responsible for the sharp drop in securitization as well as the financial crisis and recession (which, as the preceding paragraphs demonstrate, is an untenable position), he has provided no analysis to demonstrate such a relationship or parse out the partial impact on Moody’s stock price of other factors that led to the sharp drop in securitization. Instead, he effectively attributes the entire stock price drops on his curative disclosure days due to the reduction in revenue, analyst downgrade, and regulatory inquiries in response to the financial crisis to the alleged misrepresentations, completely ignoring the impact of macroeconomic factors that even he would concede are outside of Moody’s control.⁵⁸

35. Furthermore, as I discussed in my prior reports, rating agencies did not have a fundamentally distinct way of analyzing the risks of structured finance products compared to other market participants. The market was awash with data about the mortgages that were

⁵⁶ Coffman May 2012 Report, ¶¶ 19–23. In the Congressional testimony cited by Mr. Coffman, contrary to the impression left by the Coffman May 2012 Report, Dr. Greenspan noted that many actors were involved in creating the subprime boom (and ensuing bust), including banks, lenders, and investors. Dr. Greenspan also noted: “It was the failure to properly price such risky assets that precipitated the crisis. In recent decades, a vast risk management and pricing system has evolved, combining the best insights of mathematicians and finance experts supported by major advances in computer and communications technology.... This modern risk management paradigm held sway for decades. The whole intellectual edifice, however, collapsed in the summer of last year because the data inputted into the risk management models generally covered only the past two decades, a period of euphoria.” (“Turmoil in The Financial Markets – Dr. Alan Greenspan,” *Congressional Testimony by CQ Transcriptions*, October 23, 2008.) It is also relevant to note that the one explicit policy recommendation Dr. Greenspan makes in his testimony has nothing to do with rating agencies but instead is to require banks to retain skin-in-the-game for securitizations. In his paper about the financial crisis, Dr. Greenspan also notes that “[a]long with the vast majority of market participants, regulators failed to anticipate the onset of crisis,” and he states that “[c]ould the breakdown that so devastated global financial markets have been prevented? Given inappropriately low financial intermediary capital (that is, excessive leverage) and two previous decades of virtually unrelenting prosperity, low inflation, and low long-term interest rates, I very much doubt it. Those economic conditions are the necessary, and likely the sufficient, conditions for the emergence of a bubble in income-producing assets.” (Alan Greenspan (2010), “The Crisis,” *Brookings Papers on Economic Activity*, Spring 2010, pp. 201–243.)

⁵⁷ Coffman May 2012 Report, ¶ 23.

⁵⁸ Mr. Coffman may claim that he accounts for macroeconomic factors by removing market and industry price movements in his event study model, but doing so is not tantamount to parsing out these exogenous factors. The event study model controls for daily movements in the market and industry factors to arrive at a Moody’s-specific daily return. However, Moody’s stock price could still react to a Moody’s specific announcement that was caused by macroeconomic or industry-wide factors unless that announcement could be perfectly anticipated knowing the macroeconomic or industry-wide factors.

securitized, and investors were able to follow the default performance of these mortgages in a timely fashion by subscribing to databases such as *Intex* and *LoanPerformance*.⁵⁹ During the financial crisis, market participants, as well as rating agencies, realized that highly-rated structured finance securities were riskier than they had originally believed. As a result of high default rates, a substantial proportion of the securities backed by mortgages originated in 2006 and 2007 were downgraded.⁶⁰ As the crisis deepened and recession followed, more securities were affected.

36. Importantly, ratings downgrades during the crisis do not mean that the ratings themselves were necessarily “wrong” when they were given or, even if they were wrong, that they were wrong because of conflicts of interest.⁶¹ Mr. Coffman ignores the fact that ratings which appear to have been too high *ex post* could have been too high for reasons other than conflicts of interest. Throughout their history, rating agencies have downgraded securities as they received new information. Further, structured finance securities were complex securities. Their ratings rested on statistical and economic models that could fail as the world changed and underlying assumptions were violated due to unanticipated events. For example, as shown by Exhibit 6, downgrade rates were relatively high for several structured finance asset classes in 2002 due to the previous economic downturn. Mr. Coffman stated in his depositions that he could not deem an occurrence of a large number of downgrades to be necessarily potentially material without having done a “detailed analysis.”⁶² Mr. Coffman has done no such analysis to suggest that the so-called “anomalous number of rating downgrades” conveyed material information to Moody’s investors and led to stock price drops, and even if he had, he provides no reliable basis for the belief that these events observed in the midst of the credit crisis revealed the truth about or were caused by the alleged misstatements or allegedly concealed risk.⁶³

⁵⁹ Stulz October 2010 Report, ¶ 22.

⁶⁰ Stulz May 2010 Report, ¶ 90.

⁶¹ Stulz May 2010 Report, ¶¶ 18–19; 87–91.

⁶² Mr. Coffman also stated that “I felt on a whole one would not expect ratings downgrades generally to be material and so for that group type of announcement I decided to leave it out as being potentially material news. There may have been one or two days during the class period where potentially the very number [of downgrades] may have changed the views of investors, but I did not include those.” (Deposition of Chad Coffman, October 7, 2010, 58:10 – 63:14.)

⁶³ Coffman May 2012 Report, ¶ 52.

b. Additional conceptual flaws with the Coffman May 2012 Report arguments.

37. The Coffman May 2012 Report's discussion of the liability theory of the alleged fraud, lack of independence, and "unsustainable ratings practices" focuses on conflicts of interest related to the ratings of *subprime* mortgage securities. For example, Mr. Coffman notes "growth in structured finance ratings revenue from the issuance of securities tied to residential mortgages, largely Alt-A and subprime mortgages, drove a substantial increase in Moody's revenue, leading up to and including the Liability Period."⁶⁴ Mr. Coffman continues, "the unsustainable growth in subprime structured finance revenue (and hence market value) cannot legitimately be viewed as simply an industry effect."⁶⁵ Finally, he states: "[i]n sum, I interpret Plaintiffs' liability theory to be that...Moody's had succumbed to conflicts of interest and rather than being a skeptical gatekeeper, had adopted ratings methodologies that understated the credit risk of huge swaths of complex securities tied to subprime mortgages."⁶⁶ Mr. Coffman also discusses Moody's alleged deficiencies in assessing subprime loan originator quality in the early portion of the Coffman May 2012 Report, although he fails to discuss the economic materiality of such alleged misrepresentations or present any alleged corrective disclosure that revealed such alleged misrepresentations later in his report.⁶⁷

38. The focus on conflicts of interest related to subprime securities that underlies Plaintiffs' liability theory notwithstanding, many of the conclusions in the Coffman May 2012 Report draw from broader structured finance sector data. For example, Mr. Coffman discusses the importance of structured finance ratings revenue to Moody's ratings business as a whole,⁶⁸ and the Coffman May 2012 Report Exhibit 1 presents Moody's structured finance and non-structured finance revenue, but does not disaggregate the structured finance revenue into subprime vs. other sectors. Additionally, much of Mr. Coffman's discussion of the supposed October 24–25, 2007 disclosure event focuses generally on declining performance in Moody's structured finance

⁶⁴ Coffman May 2012 Report, ¶ 16.

⁶⁵ Coffman May 2012 Report, ¶ 23.

⁶⁶ Coffman May 2012 Report, ¶ 29.

⁶⁷ Coffman May 2012 Report, ¶ 28.

⁶⁸ Coffman May 2012 Report, ¶ 15.

business unit, and the possibility that structured finance revenue generally might not recover (which will be discussed in more detail in the next section).⁶⁹

39. This casual use of aggregate structured finance segment performance data ignores the fact that the bulk of Moody's structured finance revenue did not come from securities backed by subprime mortgages. On the contrary, the portion of Moody's 2006 revenue from subprime related securities was estimated to be only 7–8% of Moody's total revenue,⁷⁰ and as I discussed earlier, Moody's had expected U.S. RMBS (including subprime) ratings revenue to fall in 2006 and 2007, and expressed this belief publicly. In addition, the structured finance market is diverse, and ratings from different sectors of structured finance perform very differently, thus it is inappropriate to assume that aggregate structured finance segment information is a proxy for subprime performance. As can be seen in Exhibit 6, the downgrade rates of several structured finance asset classes were lower than the downgrade rates of corporate ratings in 2007–2008, and on par with the downgrade rates during the previous recession and downgrade wave in 2002.⁷¹ For example, the downgrade rates of high-yield U.S. CBOs (collateralized bond obligations), high-yield U.S. CLOs (collateralized loan obligations), and U.S. CMBS in 2007 and 2008 were lower than in 2002. The downgrade rates in 2007 and 2008 for global structured finance, excluding securities backed by recent vintage mortgages and certain other categories, were in fact lower than those for corporate debt.⁷² To the extent that Mr. Coffman's "unsustainable ratings practices" theory is only applicable to ratings of subprime related securities, Mr. Coffman has done nothing to disentangle the effect in his loss causation analysis, rendering it unreliable.

40. In this sub-section I have so far focused on conceptual issues with the purported "Loss Causation Events" related to "unsustainable" subprime ratings revenue. However, the same

⁶⁹ Coffman May 2012 Report, ¶¶ 61–68.

⁷⁰ Stulz May 2010 Report, ¶95 referencing Bear Stearns, Citi, and Merrill Lynch reports from early 2007.

⁷¹ Considering a different performance metric, impairments, there is similar evidence that impairments experienced across structured finance sectors in the 2007–2008 crisis were very different, and some sectors performed better in the 2007–2008 crisis than they did in the 2001–2002 downturn. For example, the cumulative impairment rate experienced by the three major asset classes within U.S. ABS (excluding home equity loans, or HEL), namely those backed by student loans, autos, and credit cards, experienced few impairments from 2007 through year-end 2008. Only 20 and 17 of the ABS deals were materially impaired in 2007 and 2008, respectively, compared to 117 in 2002. Even within the RMBS sector, only four deals backed by jumbo mortgages experienced payment shortfalls in 2008, compared to over a thousand experienced by the subprime sector. ("Default & Loss Rates of Structured Finance Securities 1993–2008," *Moody's Investors Service*, August 2009, pp. 5, 8–9, 11.)

⁷² Excluded categories include Structured Finance CDOs, Other Structured Finance, and 2005–2007 vintage U.S. home equity loans and RMBS, as defined by Moody's Investor Service. ("Structured Finance Rating Transitions: 1983–2008," *Moody's Investors Service*, March 2009, p. 2.)

criticisms apply to Mr. Coffman's attempt to link regulatory scrutiny and model errors to the alleged misrepresentations. I have discussed in my previous reports the fact that rating agencies have historically been subject to various criticisms and regulatory scrutiny. This general regulatory risk is noted by Moody's itself in its SEC filings. One of the most recent episodes of heightened regulatory inquiry prior to the financial crisis followed ratings agencies' failure to downgrade the credit ratings of Enron and WorldCom to below investment grade until shortly before the firms collapsed.⁷³ In 2005, the Senate Committee on Banking, Housing, and Urban Affairs, led by Senator Shelby, held a hearing entitled "Examining the Role of Credit Rating Agencies in the Capital Markets."⁷⁴ Moody's also received two subpoenas from the office of NY Attorney General Eliot Spitzer that year seeking to investigate its unsolicited ratings, and its ratings of reinsurance companies and deals backed by jumbo mortgages.⁷⁵ In 2006, heightened Congressional and regulatory scrutiny led to the eventual passage of the Credit Rating Agency Reform Act, which aimed to increase accountability, transparency, and competition within the credit rating industry.⁷⁶ It is clear, then, that an increase in regulatory risk in and of itself does not indicate that rating agencies systematically succumbed to conflicts of interest.

41. Furthermore, Mr. Coffman includes the uncovering of rating model errors in May 2008 on CPDO securities as a "Loss Causation Event," even though CPDO securities had nothing to do with subprime mortgage collateral and the alleged coding error in rating methodologies for CPDOs were unique to those securities.⁷⁷ The model errors were certainly not in any way tied to

⁷³ Stulz May 2010 Report, ¶ 16, footnote 4.

⁷⁴ Senator Shelby made the opening statement that "[a]s new corporate and municipal issuers seek to access an increasingly global market and as issuers develop innovative and complex financial products, there is every reason to expect that the importance and influence of credit rating agencies will continue to grow. Given investors' reliance on these agencies, I believe that it is important for this Committee to carefully examine the industry, the ratings process, and the regulatory landscape." ("Examining the Role of Credit Rating Agencies in the Capital [sic] Markets," Committee on Banking, Housing, and Urban Affairs, February 8, 2005.)

⁷⁵ "Spitzer Examining Debt Ratings By Moody's," *The Washington Post*, July 30, 2005.

⁷⁶ United States Congress, Credit Rating Agency Reform Act of 2006, 109th Congress, 2nd Session, September 29, 2006; "Legislative Calendar, One Hundred Ninth Congress, 2005–2006," Committee on Banking, Housing, and Urban Affairs, United States Senate, 2007, p. 38; "Bush signs bill promoting more monitoring of financial rating agencies," *Associated Press Newswires*, September 29, 2006. Prior to the passage of the Credit Rating Agency Reform Act, the increased regulatory and legislative inquiry by Congress and other organizations in 2006 was considered to create a potential risk for Moody's, as outcomes of which "could meaningfully damage Moody's business model and/or market leadership position." ("Thoughts on Moody's Following FBR Conference Presentation and Heading Into MCO Investor Day," *Friedman, Billings, Ramsey & Co.*, June 5, 2006.) See, also, "Strong Trends Persist," *Citi*, March 30, 2006.

⁷⁷ See discussion in the Stulz May 2010 Report, ¶¶ 112–118.

the subprime loan originator methodology issues that were allegedly misrepresented by Moody's.⁷⁸

42. Similarly, Mr. Coffman spends considerable time quoting from analyst reports, academic articles, and Moody's own statements to demonstrate that "reputation" is important to Moody's business, and that the reputational concerns include accuracy of ratings.⁷⁹ Mr. Coffman goes as far as stating that "[i]t is then reasonable that an anomalous number of ratings downgrades and/or downgrades *due to model errors* could foreseeably cause investor losses."⁸⁰ Though Mr. Coffman is correct that rating accuracy could affect Moody's reputation, he seems to be confused about whether *ex post* reputational concerns about ratings accuracy are necessarily related to the alleged misrepresentations in this matter. As previously mentioned, the general reputational risk was disclosed by Moody's itself. Of course, ratings model errors could occur due to reasons other than Moody's succumbing to conflicts of interest. For example, the models may have been developed in good faith but proven *ex post* to be poorly suited to capture certain unexpected market environments. Mr. Coffman has provided no evidence to suggest that the alleged misrepresentations or allegedly concealed risk led to the disclosure of the error or the stock price response.

43. The evidence discussed above demonstrates that Mr. Coffman cannot use sweeping generalizations to reliably link the stock price decrease caused by his categories of "Loss Causation Events" with the materialization of concealed risk created by alleged misrepresentations. I will show in the following section that Mr. Coffman also fails to provide reliable evidence or analysis to suggest that the stock price drops on specific alleged disclosure dates were a revelation or result of Moody's alleged conflicts of interest. Hence, Mr. Coffman has failed to demonstrate, and indeed there is no reliable basis for Plaintiffs to claim, that they suffered losses due to the alleged fraud.

⁷⁸ Coffman May 2012 Report, ¶¶ 73–75.

⁷⁹ Coffman May 2012 Report, ¶¶ 35–36, 51–52.

⁸⁰ Coffman May 2012 Report, ¶ 52 (emphasis added).

IV. The Alleged “Loss Causation Events” Do NOT Provide Reliable Evidence of Loss Causation or Economic Materiality.

44. In this section, I examine each of Mr. Coffman’s “Loss Causation Events” and the associated stock price movements in turn and show that none of them provides evidence of loss causation.

August 20, 2007

45. On August 20, 2007, Senator Richard Shelby, the ranking member of the U.S. Senate Banking, Housing, and Urban Affairs Committee, made a remark that rating agencies “have played a central role in the subprime debacle,” and hence they must “shoulder some responsibility.”⁸¹ Mr. Coffman cites this news as a corrective disclosure, noting that it “increased the market’s assessment of the probability that Moody’s would face costly regulation and represents a materialization of the risk caused by the underlying conduct.”⁸² I have discussed the news and stock price drop on that day in my previous two reports and showed that despite Mr. Coffman’s previous characterization of this news as indicating “bipartisan support for increased regulation of the credit rating agencies,”⁸³ Senator Shelby’s remark reflects nothing new that could have potentially revealed the alleged misstatements.⁸⁴ Therefore, neither Plaintiffs nor Mr. Coffman can show that the stock price dropped or investors suffered losses on August 20, 2007 as a result of new information related to the alleged misrepresentations.

46. The Court agreed with me, noting that “this was not the first time that members of Congress expressed concern about the role rating agencies played in the subprime mortgage crisis... The fact that Congress was going to examine the rating agencies’ conflicts does not amount to a revelation of the alleged fraud, specifically that Moody’s had falsely stated it was independent when it had in fact systematically succumbed to conflicts and issued inflated ratings

⁸¹ In Re: Moody’s Corporation Securities Litigation, Consolidated Amended Complaint, filed June 27, 2008 (“Complaint”), ¶ 400; “US senator sees sub-prime crisis getting worse before better,” *Agence France Presse*, August 20, 2007, 6:33 AM; “U.S. legislators will quiz rating agencies - Senator,” *Reuters News*, August 20, 2007, 9:06 AM.

⁸² Coffman May 2012 Report, ¶ 58.

⁸³ Coffman August 2010 Report, ¶ 98.

⁸⁴ Stulz May 2010 Report, ¶ 105; Stulz October 2010 Report, ¶ 47.

because of it.... There was no revelation of new information, nor a factual basis to conclude that Moody's ratings were not independent of any potential conflict of interest."⁸⁵

47. In his May 2012 Report, Mr. Coffman offers *no* new analysis or evidence to rebut my (or the Court's) previous conclusion. Other than repurposing the same set of facts discussed extensively in the prior reports to fit his materialization of undisclosed regulatory risk theory, Mr. Coffman briefly dismisses my argument about confounding news and attempts to inflate the importance of Senator Shelby's remarks by reemphasizing that he is a Republican, and by suggesting that the Senator's comments revealed his new position on the rating agency regulation issue.⁸⁶

48. Below I will show once again how Mr. Coffman's analysis of this day is fundamentally flawed in several important ways, and therefore his conclusion that investors suffered losses on this day due to the alleged fraud is unsupported. First, Senator Shelby's remarks on August 20th reflect no new material information about increased likelihood of potential regulation in general, or Moody's alleged succumbing to conflicts of interest specifically. Second, as noted above, ratings agencies have long been the subject of Congressional scrutiny for a variety of reasons, including when there are highly-publicized downgrades. Thus, Senator Shelby could have criticized ratings agencies absent the alleged misrepresentations based simply on ratings performances during the financial crisis. Third, the pattern of stock price movements is inconsistent with Plaintiffs' allegations that Senator Shelby's remarks caused the stock price decline. Finally, in his attempt to paint confounding information raised in my prior expert reports as related to the allegations (and thus not "confounding"), Mr. Coffman fails to demonstrate a link between this information and the alleged misstatements.

49. As I discussed in the Stulz May 2010 Report, and as the Court concluded, the information that Moody's was facing Congressional scrutiny related to the subprime crisis was not new.⁸⁷ Congressman Barney Frank and Senator Christopher Dodd (who was the Chairman of the U.S. Senate Banking, Housing, and Urban Affairs Committee) had discussed potential hearings and

⁸⁵ In Re: Moody's Corporation Securities Litigation, Memorandum Decision and Order of Judge George B. Daniels, U.S.D.J., filed March 31, 2011, p. 8.

⁸⁶ Coffman May 2012 Report, ¶¶ 57, 60.

⁸⁷ See In Re: Moody's Corporation Securities Litigation, Memorandum Decision and Order of Judge George B. Daniels, U.S.D.J., filed March 31, 2011, p. 8.

legislation related to the rating agencies and subprime issues in the months prior to August 20, 2007.⁸⁸ Mr. Coffman attempts to portray the remarks from Senator Shelby as having greater relevance for potential regulation of rating agencies because he was a Republican Senator during the time when regulation-minded Democrats controlled the House of Representatives. Mr. Coffman's theory seems to be that Senator Shelby was previously sympathetic to ratings agencies, and his criticism and call for regulation represented a sea change. Indeed, Mr. Coffman argues, "For [Republican] Senator Shelby to now publicly lambast the CRAs in concert with Senator Dodd...represented new news that was material to the market."⁸⁹

50. However, Mr. Coffman ignores the fact that Senator Shelby himself had been known as a long-time critic of rating agencies and also an advocate for greater oversight and regulation of the credit rating agencies related to potential conflicts of interest since before the Liability Period. For example, on February 1, 2006, Senator Shelby said, "I think it needs to be changed. ... There's got to be a better system. ... There are too few (firms), not enough competition, probably not enough transparency, especially when there gets [*sic*] to be conflicts of interest."⁹⁰ Senator Shelby was the sponsor of the Credit Rating Agency Reform Act in 2006 which provided the SEC more regulatory and oversight authority over rating agencies and opened the industry to potentially greater competition.⁹¹ The bill had bipartisan support in the Senate, and was passed by unanimous consent.⁹² In late 2006, the Senator repeated his criticism of the rating agencies, saying that they "failed millions of investors by neglecting to lower their ratings on Enron, WorldCom and other companies headed for bankruptcy. ... The absence of timely downgrades in these cases was a product of an industry that was beset by conflicts of interest and

⁸⁸ Stulz May 2010 Report, ¶ 105.

⁸⁹ Coffman May 2012 Report, ¶ 57.

⁹⁰ "Update 3 – US Senate's Shelby urges credit rater changes," *Reuters News*, February 1, 2006. As previously mentioned, Senator Shelby also initiated the congressional hearing on credit rating agencies in February 2005. "Examining the Role of Credit Rating Agencies in the Capital [*sic*] Markets," Committee on Banking, Housing, and Urban Affairs, February 8, 2005.

⁹¹ "Proceedings and Debates of the 109th Congress, Second Session," *Congressional Record*, Vol. 152, No. 120, September 22, 2006, which shows that the bill, sponsored by Senator Shelby, was discussed by Senator Sarbanes (D), and "reflects important contributions from Senators Menendez [D], Schumer [D], Enzi [R], and Sununu [R]." ("Biographical Directory of the United States Congress," <http://bioguide.congress.gov/biosearch/biosearch.asp>, accessed June 8, 2012.)

⁹² "Legislative Calendar, One Hundred Ninth Congress, 2005–2006," Committee on Banking, Housing, and Urban Affairs, United States Senate, 2007, p. 38.

a lack of competition.”⁹³ Mr. Coffman himself even quotes the Senator’s comments suggesting stronger regulation at the beginning of the Liability Period.⁹⁴ Thus, contrary to Mr. Coffman’s assertion, Senator Shelby’s comments on August 20, 2007 do not represent a “change in views.”⁹⁵ Indeed, the Senator was described as “a persistent critic” of the rating agencies and “expressed concerns” about the industry in connection with the subprime problems in April 2007.⁹⁶

51. As I discussed in my previous report, Mr. Coffman also ignores the fact that the alleged disclosure itself seems to contain some information that could mitigate regulatory risk as well. Senator Shelby urged “legislative restraint” in his comments, and his comments were the subject of an article by *Dow Jones International News* on August 20, 2007 under the headline “Lawmakers Must Not Over-Regulate Credit Agencies — US Senator.” In the article, Senator Shelby was quoted as saying “[t]here will be calls for more regulation. ... My first thought is let’s not over-regulate the market, the market will regulate itself.”⁹⁷

52. If Senator Shelby’s remarks offered new material information to investors that represented an important “change in views,” one would expect analyst reports to address the news. To the contrary, I have not seen a single analyst report discuss Senator Shelby’s comments, or note that there was a substantial increase in regulatory risk because of them, let alone suggest that they were linked to Moody’s alleged compromised independence.

53. As discussed in detail in Section III.b, news about increased regulatory scrutiny in general cannot be linked to Moody’s alleged misstatements about conflicts of interest unless Plaintiffs can demonstrate that the increased scrutiny would not have occurred absent the alleged wrongdoing. Indeed, credit rating agencies have historically been subject to frequent regulatory and legislative scrutiny. The regulatory risk facing credit rating agencies was widely discussed

⁹³ “Bush Signs Rating Agency Reform Act,” *CFO.com*, October 2, 2006, available at <http://www.cfo.com/article.cfm/7991492>.

⁹⁴ Coffman May 2012 Report, ¶ 49. Despite the cited statements from Senator Shelby in March 2006 that “the U.S. Congress has a decision to make,” and the Senator’s sponsoring the Credit Rating Agency Reform Act bill subsequently in that year, Mr. Coffman claims that the Senator was not calling for regulation in March 2006 and did not do so until August 20, 2007. (Coffman May 2012 Report, ¶ 49, footnote 70.)

⁹⁵ Coffman May 2012 Report, footnote 70.

⁹⁶ “Democrats Turning To Credit Rating Agencies’ Role In Subprime Loan Crisis,” *CongressDaily/A.M.*, April 18, 2007.

⁹⁷ “Lawmakers Must Not Over-Regulate Credit Agencies – US Senator,” *Dow Jones International News*, August 20, 2007, 11:52 AM.

in the press and analyst reports before and throughout the Liability Period. It was also mentioned in Moody's SEC filings.⁹⁸ Such risk could materialize in the absence of any fraud simply through the normal course of business, especially when there is an outcry about alleged important mistakes, such as the ones related to Enron and WorldCom, or more recently, in a period of credit market turmoil. Indeed, in July 2007, a JPMorgan analyst commented that "Should credit markets deteriorate materially, ratings agencies would likely face heightened scrutiny,"⁹⁹ suggesting that such scrutiny would be caused by broad credit market factors unrelated to the allegations.

54. Additionally, as I noted in the Stulz May 2010 Report, the intra-day price movement is inconsistent with Plaintiffs' claim that Senator Shelby's statement caused Moody's stock price to drop.¹⁰⁰ Mr. Coffman has previously opined that Moody's stock traded in an efficient market.¹⁰¹ In an efficient market, the price reaction to new information should be rapid. Although Senator Shelby's remark was made prior to market open, Moody's stock price opened at approximately \$49.30 on August 20, compared to the closing price of \$49.98 on August 17, the previous trading day, and it declined throughout the remaining trading hours. Mr. Coffman fails to explain why Moody's stock price did not respond immediately to the alleged disclosure, as it should have in a supposedly efficient market had the alleged disclosure contained economically material information.¹⁰²

55. Finally, even if this alleged disclosure conveyed new material information that constitutes a materialization of regulatory risk that could be attributed to the revelation of alleged misstatements, there was additional negative information unrelated to the allegations on August 20, 2007 that could have affected Moody's stock price. I discussed in my first report the JPMorgan downgrade of McGraw-Hill (the parent company of rating agency Standard & Poor's).¹⁰³ Mr. Coffman asserts that this information "would nonetheless be consistent with Plaintiffs' loss causation theory" because that downgrade was caused by pessimism about the

⁹⁸ See, for example, Moody's Corp., 2006 Annual Report, p. 56.

⁹⁹ "2Q07 Preview, Adj Ests," *JPMorgan*, July 20, 2007, p. 3.

¹⁰⁰ Stulz May 2010 Report, ¶ 107.

¹⁰¹ See, for example, Coffman August 2010 Report, ¶ 50 ("there is overwhelming evidence that Moody's stock traded in an efficient market").

¹⁰² Stulz May 2010 Report, ¶ 107, footnote 161.

¹⁰³ Stulz May 2010 Report, footnote 158.

evolution of structured finance revenue generally.¹⁰⁴ As discussed at length in Section III, Mr. Coffman fails to show that news about *Moody's* declining structured finance revenue is connected to the alleged misstatements; he has provided no reliable basis to believe that revenue of a competitor is somehow linked to the allegations. Indeed, the JPMorgan analyst himself attributes the declining revenue to macroeconomic factors, including “a meaningful decline in issuance activity” and “the current freeze in some credit markets.”¹⁰⁵ Thus, if the JPMorgan downgrade is deemed “potentially material” to *Moody's* investors by Mr. Coffman himself,¹⁰⁶ and thus could have caused a stock price decline, Mr. Coffman fails to account for this confounding news when performing his loss causation and damages analysis.

56. Due to the reasons I have explained above, I conclude that Mr. Coffman has failed to demonstrate, and that there is no reliable evidence to indicate, that investors suffered losses on August 20, 2007 due to the alleged misrepresentations. I also conclude that the stock price movement on that day cannot be used to reliably demonstrate that *Moody's* stock price was inflated due to the alleged misrepresentations.

October 24–25, 2007

57. On October 24, 2007, *Moody's* announced its earnings for the third quarter of 2007 (“Q3 2007”) including a decline in structured finance ratings revenue and RMBS ratings revenue in particular, lowered its guidance for 2007, and conducted a conference call discussing these quarterly financial results.¹⁰⁷ On both October 24 and October 25, numerous analysts issued reports discussing their interpretation of the earnings announcement, and on October 25, 2007 an analyst from JPMorgan downgraded his investment recommendation on *Moody's* stock from neutral to underweight.¹⁰⁸ Mr. Coffman points to the earnings news as well as the JPMorgan

¹⁰⁴ Coffman May 2012 Report, ¶ 60.

¹⁰⁵ “The McGraw-Hill Cos.: Downgrading to Neutral,” *JPMorgan*, August 20, 2007.

¹⁰⁶ In Exhibit 1 to the Coffman August 2010 Report, Mr. Coffman lists this story as “potentially material” news.

¹⁰⁷ “Q3 2007 *Moody's* Corporation Earnings Conference Call - Final,” *Voxant FD Wire*, October 24, 2007.

¹⁰⁸ Stulz May 2010 Report, ¶ 110 referencing “Downgrading to Underweight; Lowering Ests,” *JPMorgan*, October 25, 2007.

analyst downgrade as “foreseeable consequences of Moody’s sacrificing its independence, integrity, and rating quality.”¹⁰⁹

58. Mr. Coffman’s analysis of these two days has several serious flaws and deficiencies which render his conclusion that investors suffered losses due to the alleged misstatements unreliable. First, there is no reliable basis on which to assert that the alleged fraud, as opposed to broad market factors and a developing credit crisis, caused Moody’s poor quarterly financial performance, or in turn led to the JPMorgan analyst downgrade. Second, there were many additional sources of negative information contained in the earnings release and analyst reports on October 24 and 25 that had nothing to do with the structured finance ratings business generally, or with the subprime segment of structured finance specifically, and Mr. Coffman does not address such confounding information. Mr. Coffman’s assertion that Moody’s stock price drop was entirely caused by a “more permanent expected decline in structured finance”¹¹⁰ is baseless and unsupported by contemporaneous evidence from analysts’ forecast revisions. Additionally, some analysts actually noted that the structured finance revenue exceeded their expectations. Finally, Mr. Coffman’s statistical analysis of the stock price drop is flawed, unscientific, and unreliable.

59. First, it is natural that analysts’ forecasts and Moody’s stock price would react negatively if the firm announced poor quarterly earnings and/or reduced guidance for future revenue growth. Reduced business prospects in a certain sector do not indicate there is anything fraudulent with the way Moody’s conducts its business. Moody’s had previously announced lower than expected revenue growth on April 26, 2006, shortly after the beginning of the Liability Period. This is an event marked by Mr. Coffman in his Coffman May 2012 Report Exhibit 1. On that day, Moody’s stock price experienced a statistically significant abnormal return of -12.72% according to Mr. Coffman’s model.¹¹¹ The drop in revenue growth during Q1 2006 was indeed largely attributed to the lower than expected issuance volume for several non-structured finance rating sectors such as corporate finance and public finance.¹¹² However, this

¹⁰⁹ Coffman May 2012 Report, ¶¶ 61–68.

¹¹⁰ Coffman May 2012 Report, ¶ 66.

¹¹¹ Backup Materials for the Coffman May 2012 Report.

¹¹² Moody’s Corporation Form 8-K, April 26, 2006; “1Q06 Moderately Below Expectations,” *JPMorgan*, April 26, 2006; “Chinks In The Armor? Moody’s Posts Slight Revenue ‘Miss’ In Q1,06; Stock Trades Down Sharply Given Concern Over Slowing Top-Line Trends,” *Bear Stearns*, April 26, 2006.

April 2006 revenue decline does not indicate any “unsustainable ratings practices,”¹¹³ or even issues with the quality of Moody’s work in those areas where revenue growth dropped.

60. With respect to the Q3 2007 earnings announcement, Mr. Coffman seems to focus on the structured finance ratings revenue and RMBS ratings revenue in particular. As discussed in Section III, it was known that structured finance ratings revenue was largely driven by issuance activities that depended on the development of the credit market, with some structured finance segments such as RMBS also closely correlated with the movement of housing prices and mortgage markets. As previously discussed, RMBS ratings revenue was in fact predicted to decline by the management starting at the beginning of the Liability Period. When the housing market cooled down in late 2006, subprime mortgages started to perform worse than expected and issuance dropped.¹¹⁴ When concerns about mark-to-market losses rose, institutions became reluctant to trade, which worsened liquidity and eventually led to a liquidity crisis, RMBS securitization volume (and thus revenue) fell further.¹¹⁵ Thus, while the scale and speed of the decline in RMBS issuance and revenue in late 2007 may have been unprecedented, the key macroeconomic drivers of the decline were flagged by Moody’s management earlier in the Liability Period and noted by market participants. Given the financial crisis, Mr. Coffman has not provided any evidence to suggest that a drop in RMBS revenue would not have occurred but-for Moody’s alleged misrepresentations.

61. As discussed in Section III and previously in the Stulz May 2010 Report, Mr. Coffman provides no reliable basis on which to assert that Moody’s alleged misrepresentations caused the housing market and credit market contraction that contributed to Moody’s negative earnings news and declining ratings revenue. As discussed above, the fact that ratings revenue in U.S. CMBS and international structured finance *grew* in Q3 2007 is strong evidence against Mr. Coffman’s “unsustainable ratings practices” theory. Rather, what the Q3 2007 earnings news shows is certain market segments responding naturally to the new market reality in those segments. If these results revealed that Moody’s had systematically succumbed to conflicts of interest, one would logically presume revenue would decline across the board in all structured finance products, which did not happen.

¹¹³ Coffman May 2012 Report, ¶ 68.

¹¹⁴ See Exhibit 8.B.

¹¹⁵ Stulz May 2010 Report, ¶¶ 73–76

62. Also contradictory to the “unsustainable ratings practices” hypothesis, none of the commentary and analyst reports on October 24–25, 2007 linked the negative earnings news to Moody’s alleged compromised independence, failure to adhere to the Code of Conduct, or conflicts of interest (notwithstanding Plaintiffs’ allegations that the market was already becoming aware of the alleged fraud through the prior alleged disclosure on August 20, 2007). Instead, analysts viewed the diminishing ratings revenue from several structured finance asset categories as expected results of the credit crisis, and expressed confidence in Moody’s long-run prospects. The Goldman Sachs analyst noted, “we believe the pressures facing these companies are cyclical in nature and don’t represent a structural change in the economics of their business models. Accordingly, we believe investors will be well rewarded in owning these shares when credit markets rebound.”¹¹⁶ The William Blair analyst remarked: “From a long-term perspective...we believe...concerns [of diminished revenue from rating structured products] run the risk of missing the bigger picture. There are ebbs and flows in issuance volumes by specific debt type and structure—always have been and always will be.”¹¹⁷

63. Similarly, Mr. Coffman fails to explain how the October 25, 2007 downgrade by JPMorgan reveals any new information about, or was caused by, the alleged misrepresentations or the concealed risk. The reasons for the downgrade discussed in the report have nothing to do with the alleged misstatements about independence and methodology. Indeed, the report does not mention Moody’s independence or lack thereof, or any deficiencies with Moody’s ratings methodologies, therefore it is unclear how supposed revelation of the alleged misstatements caused JPMorgan to downgrade Moody’s on this day, as Mr. Coffman contends. Indeed, in discussing the financial results and forecasts, the analyst described revenue as “cyclically down.” Additionally, though the analyst discussed increased regulatory scrutiny, he again explained the cause as outside Moody’s control (and unrelated to the allegations), noting that “[r]atings agencies are currently facing heightened scrutiny as the credit markets have deteriorated.”¹¹⁸ The fact that the analyst provided several reasons for the downgrade but did *not* mention

¹¹⁶ “Revisiting the rating agencies post 3Q results,” *Goldman Sachs*, October 26, 2007.

¹¹⁷ “Lowering Estimates but See Wednesday’s Price Action as Potentially Significant; Maintain Outperform Rating,” *William Blair & Company*, October 24, 2007.

¹¹⁸ “Downgrading to Underweight; Lowering Ests,” *JPMorgan*, October 25, 2007.

conflicts of interest suggests that there is no causal link between the downgrade and the alleged misrepresentations.

64. Notably, the JPMorgan analyst previously issued a report on October 24, the day when the earnings were announced, and stated that “[w]hile we continue to like MCO’s solid long term fundamentals and robust cash flow generation, we believe near term upside may be limited.... Whether the credit markets have reached an inflection point is an open question mark.”¹¹⁹ During the conference call, the same analyst asked management questions about the guidance on CDO issuing activities,¹²⁰ and noted in the next day’s report that his estimate revision was caused by a belief that certain areas of structured finance, including ABS CDOs and CLOs, would not “materially recover in the near term,” and that “credit markets have not reached an inflection point yet.”¹²¹ He did not rule out the possibility, however, that there could be upside in the CLO rating business in the future.¹²² The analyst’s attributing lower estimates of future earnings to a more pessimistic view about the cyclical credit market and issuing activities of a few particular asset classes “in the near term” demonstrates that Mr. Coffman’s theory that the market believed that the structured finance ratings business had collapsed permanently, and that JPMorgan downgraded Moody’s stock on October 25, 2007 due to revelation of Moody’s systematic succumbing to conflicts of interest, is baseless.¹²³

65. The JPMorgan analyst was not the only one who believed the decline in structured finance issuance and revenue was cyclical. Mr. Coffman’s May 2012 Report Exhibit 1 misleadingly shows realized revenue to illustrate a so-called “permanent” decline based on what actually happened subsequent to the Liability Period. What is more relevant to an analysis of stock price movement on October 24, 2007 is the market’s *expectation* of future revenue *at that time*; multiple analysts were predicting the decline in structured finance ratings revenue to be

¹¹⁹ “3Q07 EPS Miss; Lowers 2007 Outlook,” *JPMorgan*, October 24, 2007.

¹²⁰ “Q3 2007 Moody’s Corporation Earnings Conference Call - Final,” *Voxant FD Wire*, October 24, 2007.

¹²¹ “Downgrading to Underweight; Lowering Ests,” *JPMorgan*, October 25, 2007.

¹²² “While pipeline activity in Mezz SF CDO issuance has slowed considerably due to subprime concerns, the CLO pipeline remains robust owing to the plethora of LBOs over the last several months. Should the majority of the deals in the current robust CLO pipeline be packaged and sold, MCO could exceed consensus expectations.” (“Downgrading to Underweight; Lowering Ests,” *JPMorgan*, October 25, 2007.)

¹²³ JPMorgan had also previously downgraded Moody’s on July 2, 2007 (from overweight to neutral) for largely similar reasons tied to the broad market factors. The analyst cited a potential decline in issuance as a reason for the downgrade. (“Downgrading to Neutral Due to Higher Risk Profile,” *JPMorgan*, July 2, 2007.) On July 2, 2007, the stock price return was not statistically significant according to Mr. Coffman’s model. (Backup Materials for the Coffman May 2012 Report.)

temporary. I present how analysts revised their revenue forecasts by sectors after the earnings announcement in Exhibit 9, when such information is available. As shown in Exhibit 9, the analysts from both Goldman Sachs and Merrill Lynch predicted that structured finance ratings revenue would be lower in 2008 than in 2007, but begin to recover in 2009.

66. Further, Mr. Coffman's assertion that the stock price decline was caused by revelation of the alleged misstatements is unreliable for another reason: there were numerous additional pieces of negative information in the earnings announcement. Although Mr. Coffman's discussion of this day focuses on poor structured finance revenue, analysts identified many additional sources of negative news in the earnings report – all wholly unrelated to structured finance, subprime, and hence the allegations – that led to analysts' downward revisions of future earnings estimates.

67. To begin with, numerous analysts commented that overall revenue (including that from structured finance) was in line with expectations, and blamed the lower-than-expected earnings on increased costs. For example, the Bear Stearns analyst noted that “[r]evenue growth of 6% was slightly above our estimates, but expenses spiked 21%.”¹²⁴ These higher expenses were attributed to reasons such as higher staffing, headquarter relocation, IT initiatives, and international expansion.¹²⁵ Like the tax rate surprise Mr. Coffman analyzed on this day, these issues were unrelated to the allegations, but were ignored by Mr. Coffman.¹²⁶

68. Moreover, the earnings news also caused some analysts to reduce their forecasts of revenue from other sectors, such as corporate, financial institutions, and sovereign debt ratings, as well as from Moody's KMV service, which is a segment that is insulated from conflict of

¹²⁴ “Crunched---Full-Year 2007 Outlook is (Unsurprisingly) Cut; Management Lowers the Bar, Announces Plans for ‘Aggressive’ Cost Actions,” *Bear Stearns*, October 24, 2007. See also: “First Take: Weak Results not a Surprise; Too Soon to Own Stock,” *Goldman Sachs*, October 24, 2007; “3Q07 EPS Miss; Lowers 2007 Outlook,” *JPMorgan*, October 24, 2007; “Preliminary Review of Moody's 3Q07 Earnings Release,” *Keefe, Bruyette & Woods*, October 24, 2007; “Q3 Revenue Beat, but EPS Missed,” *Merrill Lynch*, October 24, 2007.

¹²⁵ “Crunched---Full-Year 2007 Outlook is (Unsurprisingly) Cut; Management Lowers the Bar, Announces Plans for ‘Aggressive’ Cost Actions,” *Bear Stearns*, October 24, 2007; “First Take: Weak Results not a Surprise; Too Soon to Own Stock,” *Goldman Sachs*, October 24, 2007.

¹²⁶ The analysts also noted a “not quantified, but presumably big” restructuring charge announced for the fourth quarter. (See, e.g., “Crunched---Full-Year 2007 Outlook is (Unsurprisingly) Cut; Management Lowers the Bar, Announces Plans for ‘Aggressive’ Cost Actions,” *Bear Stearns*, October 24, 2007.) The Merrill Lynch analyst suggested that the charge was “likely related to severance and real estate consolidation.” (“Lowering estimates to reflect run rate trends,” *Merrill Lynch*, October 25, 2007.)

interest concerns.¹²⁷ As shown in Exhibit 9, Goldman Sachs, for example, cut its estimates of 2009 revenue from corporate finance ratings by 6.51% and that from financial institutions and sovereign ratings by 7.27% compared to its prior report following the Q3 2007 earnings announcement. Merrill Lynch also lowered its estimates for these segments.¹²⁸ Revenue forecast declines in these sectors, whether due to issuance declines or other factors, were also not related to the allegations.

69. Some analysts viewed Moody's structured finance performance in Q3 2007 as better than expected, and noted the forward-looking guidance reduction was anticipated. For example, the Bear Stearns analyst commented that "Structured Finance dropped 6% --- *slightly better than we had been modeling*."¹²⁹ Third quarter structured finance revenue was actually 13.5% better than Merrill Lynch's forecast (of \$176.9 million).¹³⁰ Merrill Lynch, in fact, *increased* its estimates of 2007 structured finance revenue by over \$22 million.¹³¹ Mr. Coffman has not accounted for any of these confounding facts.

70. Finally, in addition to the serious flaws in Mr. Coffman's analysis of the information that was released to the market during these two days, his analysis of the stock price movement is unscientific and unreliable. Although the market had the full day on October 24 to incorporate the effects of the earnings announcement, the stock price did not move in a statistically significant fashion that day according to Mr. Coffman's own model.¹³² From an economic perspective, a stock price decline must be statistically significant to demonstrate scientifically that the information at issue led to the price decline. This is because statistically *insignificant* stock price declines could simply be the result of random noise. Thus, in the case of October 24,

¹²⁷ The reduction in forecasted revenue from Moody's KMV service is clear evidence of the importance of economic conditions for Moody's revenue. The KMV service provides estimates of default probabilities for corporations that are model-driven and leave no significant room for analyst discretion. (Moody's Corp., 2006 Annual Report, p. 34) Hence, the decrease in forecasted income could not possibly be related to the impact of news about conflicts of interest, had there been such news, which we saw was not the case.

¹²⁸ See Exhibit 9.

¹²⁹ "The revenue deceleration in Q3 was not much of a surprise as the credit crunch took a big bite out of issuance volumes in August and September.... Despite the Q3 EPS 'miss' and guidance reduction (as well as more bad news in CDO-land per Merrill Lynch), MCO shares fell just 3% today. We think that's partly because most investors were already anticipating a cut to guidance." ("Crunched---Full-Year 2007 Outlook is (Unsurprisingly) Cut; Management Lowers the Bar, Announces Plans for 'Aggressive' Cost Actions," *Bear Stearns*, October 24, 2007 (emphasis added).)

¹³⁰ "Lowering Estimates to Reflect Run Rate Trends," *Merrill Lynch*, October 25, 2007, Table 1, p. 4.

¹³¹ See Exhibit 9.

¹³² Backup Materials for the Coffman May 2012 Report; Coffman August 2010 Report, Exhibit 1.

neither the earnings announcement nor conference call can be reliably determined to have caused investor losses. Further, Exhibit 10 shows the movement of Moody's stock price during the day on October 24. The price moved little after the opening and offers no support whatsoever for an argument that the information revealed before the opening of the market was not incorporated quickly and completely in the stock price.

71. In the face of an insignificant stock price movement on October 24, Mr. Coffman motivates his loss causation and materiality conclusion by expanding the period of inquiry to two days. It is improper in this case to use a multi-day event window to evaluate separate announcements on October 24 and 25, 2007. In an efficient securities market – and Mr. Coffman contends that the market for Moody's stock was efficient during the Liability Period¹³³ – information should be quickly incorporated into the stock price, and should not take two days to impact the price.¹³⁴ Mr. Coffman attempts to justify his use of a multi-day event window citing an article by Professor MacKinlay.¹³⁵ However, MacKinlay's study focuses on academic research that often uses a large sample of observations where it is difficult for researchers to do in-depth analyses of the exact timing of each event. Professor MacKinlay states that the use of a multiple-day window that includes the day after the announcement “*captures the price effects of announcements which occur after the stock market closes on the announcement day.*”¹³⁶ The earnings announcement by Moody's came *before* the stock market opened, *not* after it closed on October 24.¹³⁷ In addition, the earnings conference call was over well before the markets closed as the press reported about it already shortly after noon.¹³⁸ Further, other papers Mr. Coffman cites imply that longer-term windows are appropriate when “the market is *not* perfectly

¹³³ See, for example, Coffman August 2010 Report, ¶ 50 (“there is overwhelming evidence that Moody's stock traded in an efficient market”).

¹³⁴ I understand that Courts typically evaluate whether a market is efficient in securities class actions to support the presumption of reliance necessary to certify a class. However, from an economic perspective market efficiency is also important for the issue of price impact and loss causation. If a market is not efficient, one cannot be confident the stock price movement observed in response to certain news reliably reflects the impact of that news. Note, though, Mr. Coffman has never analyzed the market efficiency in the period *after* the purported Liability Period.

¹³⁵ Coffman May 2012 Report, ¶ 62.

¹³⁶ A. Craig MacKinlay (1997), “Event Studies in Economics and Finance,” *Journal of Economic Literature*, Vol. 35, No. 1, pp. 13–39 (emphasis added).

¹³⁷ “Moody's Corporation Reports Results for Third Quarter 2007,” *Business Wire*, October 24, 2007, 7:00 AM.

¹³⁸ “Moody's expects job cuts amid tough debt market,” *Reuters News*, October 24, 2007, 12:21 PM; “Moody's sees slower credit mkt rebound than 1998,” *Reuters News*, October 24, 2007, 12:30 PM.

efficient,”¹³⁹ or urge researchers to exert caution when using a multi-day window if the price movement on the first day is statistically *insignificant*.¹⁴⁰

72. If Mr. Coffman contends that the JPMorgan analyst downgrade on October 25, 2007 represents new material information related to the alleged fraud (a proposition I disagree with, as discussed above), to conduct a proper economic analysis he should only use the stock price reaction on October 25 in his loss causation analysis.

73. Due to the reasons I have explained above, I conclude that Mr. Coffman fails to show, and that there is no reliable evidence to indicate, that investors suffered losses during October 24–25, 2007 due the alleged misrepresentations. I also conclude that the stock price movements on these days cannot be used to reliably demonstrate that the alleged misrepresentations inflated Moody’s stock price.

May 21–22, 2008

74. On May 20, 2008, after market close, a *Financial Times* article reported that Moody’s had given incorrect Aaa ratings to billions of dollars of CPDO instruments due to a glitch in Moody’s computer model, and “[t]he results showed that early CPDOs might lose... up to four ratings notches.”¹⁴¹ The *Financial Times* article also triggered a series of events, including: Moody’s launching an external investigation; Senator Schumer sending a letter to the SEC Chairman urging sanctions if Moody’s was found to have covered up the modeling error; and public statements by Connecticut Attorney General Blumenthal on an investigation of

¹³⁹ See Coffman May 2012 Report, footnote 86, quoting Derek K. Oler, Jeffrey S. Harrison, and Mathew R. Allen (2008), “The Danger of Misinterpreting Short-Window Event Study Findings in Strategic Management Research: An Empirical Illustration Using Horizontal Acquisitions,” *Strategic Organization*, Vol. 6, No. 2, pp. 151–184 (emphasis added).

¹⁴⁰ Mr. Coffman cites a non-academic article by Krivin et al. that is not published in any peer-reviewed scholarly journal. However, the authors note that “one should exercise caution” if “the price movement on the first day of the event window is statistically insignificant, but...the cumulative price movement in [a multi-day] window is statistically significant.” (Dmitry Krivin, Robert Patton, Erica Rose, and David Tabak (2003), “Determination of the Appropriate Event Window Length in Individual Stock Event Studies,” NERA.) The authors instruct other researchers to perform a “careful investigation” to explain why the stock did not move significantly on the first day and why it is still appropriate to use a multi-day window. Mr. Coffman performed no such analysis.

¹⁴¹ “CPDOs Expose Ratings Flaw at Moody’s,” *Financial Times*, May 20, 2008, 6:36 PM.

Moody's.¹⁴² Moody's stock price dropped 15.92% on May 21, 2008, and 6.50% on May 22, 2008. Mr. Coffman argues: "If Plaintiffs establish that such ratings errors and/or the subsequent cover up stemmed from the intentional or reckless disregard for sustainable ratings practices or succumbing to conflicts of interest, then the unexpected share price decline on May 21 and May 22, 2007 represents a partial materialization of Moody's undisclosed risks proximately caused by Defendants' misrepresentations and omissions."¹⁴³

75. I have discussed the *Financial Times* news story and related commentary and events in great detail in my previous two reports. I have shown that Plaintiffs failed to demonstrate that the stock price dropped on May 21–22, 2008 due to revelation of the alleged misrepresentations, and I criticized Mr. Coffman's failure to provide a reliable basis to link the stock price drop and Moody's allegedly succumbing to conflicts of interest.¹⁴⁴ Mr. Coffman has done nothing new to address my criticisms in his May 2012 Report. He has not even articulated a theory to link the reported rating error (and subsequent alleged cover-up), an error that was known to be caused by reasons *other than* conflicts of interest related to the issuer-pay business model (and was clearly reported as such), to the alleged misrepresentations or any concealed risk created by the alleged fraud.

76. Specifically, Mr. Coffman's discussion of these days is flawed for many reasons. First, despite the criticisms in my previous two reports, Mr. Coffman still fails to recognize that the European CPDOs, the securities the ratings model errors in question relate to, are a niche product (which only accounted for a tiny fraction of Moody's structured finance business) and do *not* involve subprime mortgage debt.^{145,146} Mr. Coffman does not explain how this niche product relates to the subprime-related securities that are seemingly the focus of this case (as discussed in Section III.b above). Regardless, Mr. Coffman fails to demonstrate the causal link between this news and the specific allegations in this case regarding Moody's supposed "systematic and

¹⁴² "UPDATE 5-Moody's launches inquiry after rating error report," *Reuters News*, May 21, 2008 3:56 AM; "UPDATE: US Lawmaker Seeks SEC Probe Of Moody's Rating," *Dow Jones News Service*, May 21, 2008, 5:47 PM; "Moody's Faces Connecticut Probe of Alleged 'Cover-Up' (Update1)," *Bloomberg*, May 21, 2008, 7:02 PM.

¹⁴³ Coffman May 2012 Report, ¶ 78.

¹⁴⁴ See, for example, Stulz May 2010 Report, ¶¶ 112–118; Stulz October 2010 Report, ¶¶ 52–55.

¹⁴⁵ For a detailed discussion of CPDO products, see Stulz May 2010 Report, ¶ 113.

¹⁴⁶ Contrast the less than \$1 billion of principal affected by Moody's CPDO error discussed in the *Financial Times* article with over \$2.5 *trillion* of total rated structured finance issuance in 2006 alone. ("Moody's Investors Service Announces Actions After Review of European CPDO Rating Process," *Moody's Investors Service*, July 1, 2008; "Structured Finance Rating Transitions: 1983 - 2007," *Moody's Investors Service*, February 2008, p. 4.)

widespread” succumbing to conflicts of interest. Instead of demonstrating a link between the stock price drop and the alleged misstatements, as a proper loss causation analysis would do, Mr. Coffman’s analysis hinges on a conditional showing (by Plaintiffs) that the alleged misstatements about Moody’s systematic succumbing to conflicts caused the ratings errors and/or the alleged subsequent “cover up.”¹⁴⁷ However, Moody’s stock price would have reacted negatively due to uncertainty, general concerns over the quality of Moody’s work, or litigation risk, regardless of the reason for the ratings error. Mr. Coffman simply assumes that this ratings error stemmed from the alleged misrepresentations, while blatantly ignoring the fact that the subsequent investigations found no evidence linking this error to Moody’s alleged succumbing to issuer-pay conflicts of interest.

77. The internal and external investigations that resulted from this issue concluded that the error was a “coding error” (in other words, a programming error) in Moody’s relatively new and untested CPDO model, and it was detected while working with a banking client, rather than purposefully created for that client (recall, under Plaintiff’s core theory of conflicts of interest dating back to the Complaint, the supposed conflict was that Moody’s was paid by its bank clients, and thus had an incentive to please those clients with favorable ratings). Furthermore, the investigations found that the decision not to downgrade the CPDO securities in question was caused by certain individuals considering the broad effect on Moody’s reputation, and not because these individuals were concerned that downgrading the securities would irritate Moody’s clients.¹⁴⁸

78. As I discuss in the Stulz May 2010 Report, it is unsurprising that investors would react negatively to this article, as it raised some questions about the potential existence of large-scale model errors, which could hurt Moody’s reputation.¹⁴⁹ Importantly, this event is not evidence that the specific risks Mr. Coffman points to had materialized. Any significant concerns about Moody’s reputation or worries about large scale methodological errors could naturally impact the stock price, but it does not logically follow that any stock price decline related to uncertainty about Moody’s reputation necessarily demonstrates the materiality of the alleged misrepresentations. The risk that Moody’s reputation would take a hit from internal mistakes is a

¹⁴⁷ Coffman May 2012 Report, ¶ 78.

¹⁴⁸ “Report of Investigation Pursuant to Section 21(a) of the Securities Exchange Act of 1934: Moody’s Investors Service, Inc.,” *U.S. Securities and Exchange Commission*, Release No. 62802, August 31, 2010.

¹⁴⁹ Stulz May 2010 Report, ¶115.

well-known general risk unrelated to the allegations in the present matter, and it is a risk Moody's faced at all times even prior to the Liability Period. This general risk is the risk that materialized on May 21, 2008.

79. In contrast to his prior expert reports, in the May 2012 Report, Mr. Coffman now considers the CPDO "Loss Causation Event" to be a two-day window including May 22, 2008. However, the stock price drop on this day was likely due to announced additional litigation and regulatory inquiries associated with the CPDO news. For instance, Connecticut Attorney General Richard Blumenthal announced his investigation into Moody's after the market close on May 21, 2008, so that information could only be incorporated in the stock price the next day.¹⁵⁰ As the initial disclosure on May 21 had nothing to do with Plaintiffs' allegations in this matter, similarly the follow-up discussion of regulatory risk and further price decline the following day is also unrelated to the alleged fraud. All of these second-order effects could occur following an announcement of a significant model error, even if that error was caused by a simple mistake (as the May 21st error was), rather than – as Plaintiffs allege and Mr. Coffman seems to suggest – Moody's systematically succumbing to issuer-pay conflicts of interest. Mr. Coffman fails to link the stock price drops associated with investors' concerns over rating errors generally to Moody's allegedly concealing the specific alleged fact that it had succumbed to conflicts of interest.

80. Due to the reasons I have explained above, I conclude that Mr. Coffman has failed to show, and that there is no reliable evidence to indicate, that investors suffered losses during May 21–22, 2008 due to the alleged misrepresentations. I also conclude that the stock price movements on these days cannot be used to reliably demonstrate that the alleged misrepresentations inflated Moody's stock price.

October 21–23, 2008

81. In his May 2012 Report, Mr. Coffman considers a series of Congressional hearings as corrective disclosures. These hearings occurred on October 21, 2008 through October 23, 2008, and they discussed the financial crisis and related regulatory reform.¹⁵¹ Note that according to the Court's Opinion and Order, only October 22, 2008 was originally alleged by Plaintiffs to be a

¹⁵⁰ "Moody's Faces Connecticut Probe of Alleged 'Cover-Up' of Errors," *Bloomberg*, May 21, 2008, 5:55 PM.

¹⁵¹ Coffman May 2012 Report, ¶ 79–86.

corrective disclosure.¹⁵² On October 22, 2008, the House Committee on Oversight and Government Reform held a hearing on the role of credit rating agencies, its third hearing in a series of hearings on the financial crisis.¹⁵³ During the hearing, one topic of discussion was whether conflicts of interest caused ratings agencies to delay acting to correct ratings as the crisis unfolded.¹⁵⁴

82. In the Stulz May 2010 Report, I performed an event study which analyzed the firm-specific stock price movement on October 22, 2008 and found that Moody's stock price drop on this day was statistically insignificant.¹⁵⁵ Furthermore, even under Mr. Coffman's own event study model, the stock price movement is *not* statistically significant.¹⁵⁶ In his November 2010 Report, Mr. Coffman expanded the disclosure window to include October 23, 2008 as well. He claimed that the stock price movement for the two-day window is statistically significant at the 90% level.¹⁵⁷ However, the relevant scientific standard financial economists use to determine statistical significance is the more stringent 95% level, as discussed in the Stulz May 2010 Report and also as adopted in the Coffman May 2012 Report.¹⁵⁸ Thus, even after expanding the window to two days, the Coffman November 2010 Report still failed to provide compelling economic evidence that the price movements on these days were the result of anything more than random noise.

83. In addition, as discussed previously, it is scientifically improper to use a multi-day window to analyze the stock price response to this supposed disclosure, as Mr. Coffman has done. In an efficient market a stock price reacts to new information immediately.¹⁵⁹ The October 22, 2008 Congressional hearing Mr. Coffman contends was a corrective disclosure occurred during trading hours and was broadcast live on C-SPAN from 10:00 a.m. to 3:00 p.m.

¹⁵² See *In Re: Moody's Corporation Securities Litigation*, Opinion and Order of Judge Shirley Wohl Kram, U.S.D.J., filed February 23, 2009, p. 35.

¹⁵³ "Opening Statement of Rep. Henry A. Waxman," Committee on Oversight and Government Reform, October 22, 2008.

¹⁵⁴ "Credit Rating Agencies and the Financial Crisis," Committee on Oversight and Government Reform, October 22, 2008, pp. 21, 42.

¹⁵⁵ Stulz May 2010 Report, ¶ 102.

¹⁵⁶ Backup Materials for the Coffman May 2012 Report.

¹⁵⁷ Coffman November 2010 Report, ¶ 72.

¹⁵⁸ Stulz May 2010 Report, ¶ 58, footnote 84; Coffman May 2012 Report, ¶¶ 62, 98. This is recognized by the Court in its class certification ruling as well. (*In Re: Moody's Corporation Securities Litigation*, Memorandum Decision and Order of Judge George B. Daniels, U.S.D.J., filed March 31, 2011, p.19, footnote 11.)

¹⁵⁹ Stulz May 2010 Report, ¶¶ 9, 55.

on that day.¹⁶⁰ Since the market was able to observe and react to the hearings in real-time on October 22, Mr. Coffman cannot reliably show that the stock price movement on October 23 was in reaction to the information released during the Congressional hearing on October 22.¹⁶¹

84. In his current May 2012 Report, Mr. Coffman further extends the disclosure window to include not only October 23, 2008, but also October 21, 2008, two adjacent days on which different Congressional hearings were held. He claims that Plaintiffs suffered losses due to alleged misrepresentations on all three days.¹⁶² However, Mr. Coffman's analysis suffers from several serious flaws, which render his conclusion unreliable. To begin with, this three-day period is after all the named Plaintiffs sold their Moody's shares. Thus, it is unclear how these days are even relevant for loss causation in this matter. Furthermore, Mr. Coffman again fails to connect the stock price drop during this three-day period to the alleged misrepresentations. Additionally, Mr. Coffman's model fails to account for a notable increase in the volatility of Moody's stock price, as well as the broad equity market, when the financial crisis escalated after the Lehman Brothers' bankruptcy. An appropriate event study analysis using a well-specified model shows that the three-day return for October 21, 2008 through October 23, 2008 is not statistically significant. I will explain these flaws in turn below.

85. First, Mr. Coffman fails to acknowledge that all three named Plaintiffs in this matter held no Moody's shares over this three-day event window. Charles McCurley sold his position on September 4, 2007, Local 282 Pension Trust Fund sold its position on September 7, 2007, and Lewis Wetstein sold his position on October 6, 2008.¹⁶³ Because the Plaintiffs did not own Moody's stock during these alleged curative disclosures, they cannot claim that they suffered any losses due to the alleged corrective disclosures on these days.

86. Second, even if the Plaintiffs could somehow claim that they held damaged shares and suffered losses on these three days, which they cannot, Mr. Coffman has failed to properly

¹⁶⁰ "C-Span Video Library," available at <http://www.c-spanvideo.org/schedule>, accessed June 7, 2012.

¹⁶¹ Academic literature shows that, in an efficient market, information is incorporated in the stock price quickly, so there would have been ample time for information revealed towards the end of the hearing to be incorporated in the stock price. See Michael Barclay and Robert Litzenberger (1988), "Announcement Effects of New Equity Issues and the Use of Intraday Price Data," *Journal of Financial Economics*, v21, pp. 71–99; Jason T. Greene and Susan G. Watts (1996), "Price Discovery on the NYSE and the NASDAQ: The Case of Overnight and Daytime News Releases," *Financial Management*, v25(1), pp. 19–42; Jeffrey A. Busse and T. Clifton Green (2002), "Market efficiency in real time," *Journal of Financial Economics*, v65, pp. 415–437.

¹⁶² Coffman May 2012 Report, ¶¶ 89–90.

¹⁶³ McCurley 0001–07; LTPF0002852; Wetstein 0001–03.

analyze the new information released during each of these days, and thus has failed to link the stock price movements to the alleged misrepresentations. Mr. Coffman improperly uses a three-day event window, when only the middle day, October 22, 2008, is *potentially* relevant.¹⁶⁴ Mr. Coffman fails to show any new information from the testimony during the October 21, 2008 and October 23, 2008 hearings that can be tied to the alleged misrepresentations.

87. On October 21, 2008, the House Financial Services Committee held “a hearing to address the need for broad regulatory restructuring and reform for the financial markets, including financial institution oversight and regulation, systemic risk, and housing finance” as a continuation of hearings held in July.¹⁶⁵ The limited discussion of credit rating agencies that did occur hardly provided new information to the market. In the discussion on the credit rating agencies, the hearing addressed issues such as inputs to rating subprime mortgage-backed securities and the potential for further regulation.¹⁶⁶ Florida Representative Ron Klein mentioned the conflict of interest as “inherent,” but as argued by Plaintiffs and Mr. Coffman previously, a discussion of the inherent conflicts was neither new news to the market nor indicative that the market learned that credit rating agencies, or Moody’s specifically, had “succumbed” to this conflict of interest.^{167,168} The Stulz May 2010 Report also discussed extensively how there was an inherent potential for conflicts of interest given the issuer-pay business model, and how this was widely known, and frequently discussed in various public press outlets before (and throughout) the Liability Period.¹⁶⁹

88. The media’s response to the hearing, which Mr. Coffman points to, also failed to convey new information. Mr. Coffman quotes *Reuters News* describing lawmakers as saying “credit

¹⁶⁴ Coffman May 2012 Report, ¶¶ 89–90, Exhibit 6.

¹⁶⁵ “Financial Services Committee to Hold Hearing on Financial Regulation,” Committee on Financial Services, October 21, 2008, available at http://www.house.gov/apps/list/hearing/financialsvcs_dem/hr102108.shtml, accessed May 31, 2012.

¹⁶⁶ “Regulatory Restructuring and Reform of the Financial System,” Committee on Financial Services, October 21, 2008, pp. 3–4, 6, 35–36, 63.

¹⁶⁷ “Regulatory Restructuring and Reform of the Financial System hearing before the Committee on Financial Services U.S. House of Representatives,” Committee on Financial Services, October 21, 2008, pp. II, 8. The Financial Times, for example, stated that, “repeated government scrutiny reflects the rating agencies’ fundamental conflict of interest.... This conflict is well-known, long-standing and hard to do anything about.” (“Subprime ratings for rating agencies,” *FT.com*, August 16, 2007.)

¹⁶⁸ Coffman August 2010 Report, ¶¶ 55–58; Coffman November 2010 Report, ¶ 45; Coffman May 2012 Report, ¶ 49.

¹⁶⁹ See Stulz May 2010 Report, Section II.B.

rating agencies failed to do their jobs.”¹⁷⁰ As discussed above, however Senator Shelby had previously made similar statements. Before this hearing, criticisms of rating agencies related to the subprime issues were raised and discussed in at least *ten* Congressional hearings, and there were further discussions by many other regulators, pundits, commentators, and news outlets.¹⁷¹ Therefore, Mr. Coffman fails to present any new information on October 21, 2008 that can be tied to the alleged misrepresentations.¹⁷²

89. On October 23, 2008, the Committee on Oversight and Government Reform held a hearing on federal regulators in relation to the financial crisis. Credit rating agencies were largely discussed in terms of inadequate regulation by the SEC.¹⁷³ The hearing did not provide new information to the market that revealed the truth of the alleged misrepresentations. Mr. Coffman cites a statement by Mr. Cox, the SEC Chairman, which described the lack of regulation of credit rating agencies and criticized credit rating agencies’ role in the “design” of securities.¹⁷⁴ This criticism was not new to the market, as Mr. Cox openly commented on the same issue in his speech in June that year,¹⁷⁵ and in fact rating agencies’ alleged involvement in structuring deals was known well before the Liability Period.¹⁷⁶

¹⁷⁰ Coffman May 2012 Report, ¶ 80.

¹⁷¹ “Subprime Mortgage Market Turmoil: Examining the Role of Securitization,” Committee on Banking, Housing, and Urban Affairs, April 17, 2007; “Recent Events in the Credit and Mortgage Markets and Possible Implications for U.S. Consumers and the Global Economy,” Committee on Financial Services, September 5, 2007; “The Role and Impact of Credit Rating Agencies on the Subprime Credit Markets,” Committee on Banking, Housing, and Urban Affairs, September 26, 2007; “The Role of Credit Rating Agencies in the Structured Finance Market,” Subcommittee on Capital Markets, Insurance, and Government Sponsored Enterprises of the Committee on Financial Services, September 27, 2007; “The State of the United States Economy and Financial Markets,” Committee on Banking, Housing, and Urban Affairs, February 14, 2008; “The State of the Bond Insurance Industry,” Subcommittee on Capital Markets, Insurance, and Government Sponsored Enterprises of the Committee on Financial Services, February 14, 2008; “The State of the Banking Industry,” Committee on Banking, Housing, and Urban Affairs, March 4, 2008; “Turmoil in U.S. Credit Markets: The Role of Credit Rating Agencies,” Committee on Banking, Housing, and Urban Affairs, April 22, 2008; “Systemic Risk and the Financial Markets,” Committee on Financial Services, July 24, 2008; “Turmoil in the U.S. Credit Markets: The Genesis of the Current Economic Crisis,” Committee on Banking, Housing, and Urban Affairs, October 16, 2008.

¹⁷² Furthermore, under Mr. Coffman’s event study model, the stock price movement on this day is not statistically significant.

¹⁷³ See “The Financial Crisis and the Role of Federal Regulators,” Committee on Oversight and Government Reform, October 23, 2008, pp. 2, 70, 73, 77.

¹⁷⁴ Coffman May 2012 Report, ¶ 85.

¹⁷⁵ “Speech By SEC Chairman Christopher Cox: Statement At Open Meeting On Rules For Credit Rating Agencies,” *Exchange News Direct*, June 11, 2008.

¹⁷⁶ In a Bank for International Settlements (“BIS”) 2005 report, it is stated that “the agencies’ involvement in the structuring of deals[] has sparked concern that potential conflicts of interest in structured finance may be especially pronounced. According to this view, the fact that the agencies may have expressed an ‘ex ante opinion’ regarding deal structure suggests that they are providing ‘structuring advice.’” (“The Role of Ratings in Structured Finance:

90. Mr. Coffman also cites a statement by Dr. Greenspan noting, “in August 2007 markets eventually trashed the credit rating agencies’ rosy ratings.”¹⁷⁷ I have discussed in Section III that the market realized that ratings of certain securities were too high *ex post*, but such realization does not necessarily mean—as I explained in detail in the Stulz May 2010 Report—that rating agencies had systematically succumbed to conflicts or that the ratings were wrong *ex ante*. However, if Mr. Coffman insists that it does, then logically it must be the case that the alleged misrepresentations were already corrected in August 2007, which casts serious doubt on Mr. Coffman’s reliance on alleged corrective disclosures more than one year after such a revelation. In any event, Dr. Greenspan is retrospectively describing events that began over a year prior to the hearing, and thus he does not provide new information to the market. Therefore, Mr. Coffman again fails to show any new information from the Congressional testimony on October 23, 2008 that revealed the truth about the alleged misrepresentations.¹⁷⁸

91. Mr. Coffman discusses news programs on the morning of October 23, 2008 that recapped the prior day’s hearing.¹⁷⁹ However, as mentioned above, the hearing was broadcast live during trading hours on October 22, 2008. Mr. Coffman fails to identify new information tied to the alleged misrepresentations that was released to the market from coverage by National Public Radio, *The New York Post*, or NBC News on the morning of October 23, 2008.

92. Without presenting any new information released on October 21 and 23, 2008 that was directly tied to the allegations, Mr. Coffman attempts to use the materialization of undisclosed risk theory to justify his three-day event window. He asserts that “[a]t no point during the Liability Period had the credit rating agencies come under such intense regulatory scrutiny in response to the financial crisis and mismanaged conflicts of interest.” Therefore, his theory goes, the information about potential regulation during the event window from October 21, 2008 through October 23, 2008, was new to the market.¹⁸⁰

93. Even if Mr. Coffman’s claims are true that new information was released on *each of the three days*, increasing the market’s assessment of the likelihood that Moody’s would be subject

Issues and Implications,” *Bank for International Settlements, Committee on the Global Financial System*, January 2005 p. 26.)

¹⁷⁷ Coffman May 2012 Report, ¶ 86.

¹⁷⁸ Note that this day is not statistically significant under the Coffman model.

¹⁷⁹ Coffman May 2012 Report, ¶¶ 87–88.

¹⁸⁰ Coffman May 2012 Report, ¶ 89.

to costly regulatory scrutiny, his analysis misses a critical link: he has not analyzed whether such increased scrutiny was due to alleged conflicts of interest or due to other factors, such as the intensified financial crisis following the Lehman Brother bankruptcy and the failures of several major financial institutions, which alone would have likely triggered scrutiny.¹⁸¹ Furthermore, even if information from each of the three days represents new material information that can be tied to the alleged misrepresentations, and it does not, the stock price reaction is not statistically significant on any of the individual days, indicating that the information is not economically material. The stock price drop is only statistically significant when all three days are evaluated jointly based on Mr. Coffman's event study model. Importantly, as I will discuss below, Mr. Coffman's event study model is not appropriately specified to evaluate the stock price movements on these days. Specifically, Mr. Coffman ignores the heightened volatility that followed the collapse of Lehman Brothers on September 15, 2008. In contrast to Mr. Coffman's conclusions, when an appropriate model (such as the one I presented in the Stulz May 2010 Report) is used, the three-day return for October 21, 2008 through October 23, 2008 is *not* statistically significant.

94. The collapse of Lehman Brothers on September 15, 2008 was a massive shock to financial markets worldwide that led to a period of heightened volatility unprecedented in recent history. As shown in Exhibits 11.A and 11.B, from the beginning of the Liability Period through August 2008, the implied volatility of Moody's stock never exceeded 100% and was below 50% for much of the period.¹⁸² From September 16, 2008 through October 22, 2008, Moody's average implied volatility was more than double that of the period from February 3, 2006 to the Lehman collapse, and reached a high of 187%. The VIX index, which is a market-wide proxy for volatility, also experienced a steep upward increase during this period.¹⁸³

¹⁸¹ As previously mentioned, even after October 2008, the European Central Bank and the U.S. Federal Reserve continued to rely on Moody's ratings to evaluate collateral eligibility for their liquidity-raising programs, suggesting that they did not believe Moody's ratings were systematically tainted or unreliable. Furthermore, commentary reacting to the Congressional hearings did not suggest that the hearings uncovered any systematic succumbing to conflicts of interest, or posed any threat to Moody's long-term business prospects. A JPMorgan analyst, for instance, stated that "Moody's should continue to trade at a premium to the S&P 500 given its attractive business model, strong growth prospects, and high returns on capital." ("Information Services: Ratings Firms Get Taken to the Woodshed," *JPMorgan*, October 22, 2008.)

¹⁸² The implied volatility of a stock is a widely-used volatility measure, and it is calculated by Bloomberg from a weighted average of the volatilities of the closest out-of-the-money call and put options. Exhibit 11.A is originally presented as Exhibit 5 to the Stulz May 2010 Report

¹⁸³ See Exhibit 11.A.

95. Mr. Coffman's event study analysis fails to appropriately account for the dramatic shift in volatility following the collapse of Lehman Brothers. His regression model uses 120-day rolling control periods prior to the event window to assess the abnormal stock price movement during each corrective disclosure period. His approach attempts to control for gradual changes in volatility over the Liability Period,¹⁸⁴ but it is not adequately suited to control for a drastic jump in volatility, such as the one that occurred in September 2008. To determine the significance of the price movements on a given day within the October 21, 2008 through October 23, 2008 window, Mr. Coffman's control period (the period over which his model is calibrated) includes the previous 120 trading days. In the case of October 22, 2008, Mr. Coffman's control period contains data from May 2, 2008 through October 21, 2008. Therefore, over 75% of the days in this control period occur *before* the change in volatility following the collapse of Lehman Brothers, indicating that Mr. Coffman's model is largely calibrated in a much calmer market environment than the one prevailing in October 2008.

96. To test for a change in volatility during Mr. Coffman's control period, I divided Mr. Coffman's 120-day control period for October 22, 2008 into the sub-period before the Lehman collapse and the sub-period afterwards. I ran a statistical test to compare the variance of Moody's returns in these two sub-periods, and found that the variance between the two periods was statistically significantly different at the 95% probability level. I will explain below that since there is clear statistical evidence of a change in Moody's volatility *within* Mr. Coffman's control period, Mr. Coffman's methodology is invalid and his conclusions unreliable.

97. In order to determine whether a residual return is statistically significant under a regression model, economists construct a "significance threshold," which represents the level of absolute abnormal return that must be exceeded for an abnormal return to be statistically significant. This significance threshold depends in part on the variance of the returns during the control period. A control period of high variance, all else equal, would result in a higher significance threshold to test the significance of the abnormal returns during the event window. In other words, the level of absolute abnormal return that has to be exceeded for an abnormal return to be considered statistically significant is higher. The intuition is straightforward: if the stock price movements become much more volatile, then it is more likely that a big stock price

¹⁸⁴ Coffman May 2012 Report, ¶ 92.

movement is the result of random chance rather than the specific event to be analyzed. Thus, improperly accounting for volatility can adversely affect the accuracy of significance testing by leading to significance thresholds that are too high or too low.¹⁸⁵ Through his use of control periods with 75% of days in a lower volatility period, Mr. Coffman uses an inappropriately low significance threshold to determine the significance of the October 21, 2008 through October 23, 2008 three-day abnormal return. Accordingly, his conclusion that the abnormal return for this period is statistically significant is misguided and unreliable.¹⁸⁶

98. In the Stulz May 2010 Report, I advanced an event study model with three discrete control periods based on the level of Moody's stock return volatility. My second and third control periods represent the pre- and post-Lehman collapse periods. Specifically, my third control period, from September 15, 2008 through October 20, 2008, captures the heightened volatility following the collapse of Lehman Brothers.¹⁸⁷ Using this model, the three-day abnormal return from October 21–23, 2008, is *not* statistically significant at the 95% level.¹⁸⁸

99. Additionally, even if Mr. Coffman's model were modified to account for the volatility change through the use of the same control period as my model, namely September 15, 2008 to October 20, 2008, the individual and three-day residual returns for the supposed disclosures would still not be statistically significant at the 95% confidence level.¹⁸⁹

100. As a result, I conclude that Mr. Coffman fails to show, and that there is no reliable evidence to indicate, that investors suffered losses during October 21–23, 2008 due to the alleged

¹⁸⁵ The issue of time-varying stock return volatility has been well addressed in the finance literature. See, for example, John Y. Campbell, Andrew W. Lo, and A. Craig MacKinlay (1997), "The Econometrics of Financial Markets," New Jersey: *Princeton University Press*, p. 481.

¹⁸⁶ Even with this artificially low significance threshold, none of the three days are individually significant under Mr. Coffman's model.

¹⁸⁷ Stulz May 2010 Report, ¶¶ 59–62. My control period excludes alleged disclosure days, namely October 21, 2008 and October 22, 2008, as it did in the Stulz May 2010 report. As I explained in that report, I determined that the best modeling specification estimates Moody's stock return as a function of three factors: a) the return on the NYSE/Nasdaq Composite index (a market proxy), b) the return on the S&P 500 Financials Index (an index of the financial industry, of which Moody's is a small component), and c) the return on an equal-weighted index of the publicly-traded parents of Fitch and Standard & Poor's, Fimalac and McGraw-Hill, respectively (a proxy for the credit rating agency peers). As part of my analysis, I ran a series of sensitivities on my model. I extended my control period through October 31, 2008, and again through December 31, 2008, and ran my regression excluding a peer index (i.e. a two factor model with market and industry indices), and also replacing my peer index with Mr. Coffman's. Under none of these scenarios were any of these three days individually or jointly statistically significant. For this report, due to data availability limitations, I replaced the NYSE/Nasdaq Composite index with the NYSE/Arca/Nasdaq/Amex Composite index.

¹⁸⁸ The individual residual returns for these days are also not statistically significant under my model.

¹⁸⁹ The cumulative and individual residuals for these three days are not statistically significant when the control period is extended to end October 31, 2008, November 30, 2008, or December 31, 2008.

misrepresentations. I also conclude that the stock price movements on these days cannot be used to reliably demonstrate that the alleged misrepresentations inflated Moody's stock price.

V. Mr. Coffman's calculations of inflation per share and damages are unreliable.

101. As discussed in the previous sections, my opinion is that Mr. Coffman and Plaintiffs have not demonstrated economic materiality and loss causation. However, even assuming that (1) plaintiffs' allegations were true, (2) their liability theory and Mr. Coffman's interpretation of this theory were valid, and (3) investors suffered losses due to materialization of undisclosed risk created by the alleged misrepresentations, I will explain that Mr. Coffman has not reliably calculated the per-share inflation and damages caused by Plaintiffs' allegations.

102. Mr. Coffman assumes damages are created by constant (tiered) dollar inflation bands back-cast from his supposed disclosure dates.¹⁹⁰ In other words, he assumes the stock price responses to hypothetical earlier disclosures would be exactly the same as the price responses observed on his disclosure days. However, Mr. Coffman has not articulated a "but-for" scenario regarding what should have been disclosed when. As noted above, in his current report Mr. Coffman uses a stylized example to argue that inflation can be created without a statistically significant stock price increase,¹⁹¹ however the fact remains that he has not pinpointed when and by how much Moody's stock price was initially (or subsequently) inflated by the alleged misstatements. Indeed, according to his own analysis, he opines that the inflation in Moody's stock price suddenly starts at \$17.89 per share on February 3, 2006 absent any specific misrepresentation on or prior to that date that introduces the inflation.¹⁹² No incremental inflation was introduced by any of the alleged misstatements during the Liability Period according to his analysis. Furthermore, Mr. Coffman has not provided a reliable basis to believe that the observed price responses on his supposed disclosure dates are appropriate measures for the "but-for" price declines accompanying hypothetical earlier disclosures.

103. To further illustrate Mr. Coffman's failure to analyze the "but-for" disclosure and inflation properly, one should also note that Mr. Coffman's stylized example of loss causation

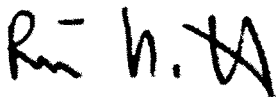
¹⁹⁰ Coffman May 2012 Report, ¶¶ 103, 105, Table 1.

¹⁹¹ Coffman May 2012 Report, ¶¶ 42–43, footnote 65.

¹⁹² Coffman May 2012 Report, ¶ 105, Table 1.

involves a type of misrepresentation that is fundamentally different from the type of misrepresentations alleged in this litigation. If the management gambles away \$1 billion and hides it, uncovering the fraud reveals that the firm is worth \$1 billion less than the market thought. Nothing management could say could eliminate the loss. In contrast, in this litigation, the allegation is that management knew that conflicts of interest were not properly controlled. It is unlikely that management would ever have disclosed that conflicts of interest were not properly controlled and not, at the same time, announced steps to bring conflicts of interest under better control. If the market had doubts about how well conflicts were managed, it is even possible that this kind of disclosure would actually have resulted in an increase in the stock price. Mr. Coffman certainly has done no analysis to demonstrate that the price response to a hypothetical earlier corrective disclosure would be the same as the response to the alleged “Loss Causation Events.”

104. I declare under penalty of perjury under the laws of the United States of America that the foregoing, including that contained in the exhibits hereto, is true and correct. Executed this 29th day of June 2012.

A handwritten signature in black ink, appearing to read "René M. Stulz".

Professor René M. Stulz

June 29, 2012

Appendix A

RENÉ M. STULZ

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UNDERGRADUATE STUDIES

University of Neuchâtel, Switzerland, Licence es Sciences Économiques, 1975.

GRADUATE STUDIES

London School of Economics, 1975-1976, Visiting Graduate Student.

Massachusetts Institute of Technology (MIT), 1976-1980, Ph.D. in Economics.

ACADEMIC APPOINTMENTS

Ohio State University; Everett D. Reese Chair of Banking and Monetary Economics, 1996 to present.

University of Southern California, Visiting Professor, 2007.

University of Chicago, Visiting Professor, Stigler Center, 2003-2004.

Northwestern University, Visiting Scholar, Kellogg School of Management, 2003-2004.

Harvard University; Business School, August 1996 to July 1997, Bower Fellow.

Ohio State University; Director of the Dice Center for Research in Financial Economics, 1995 to present.

Ohio State University; Ralph Kurtz Chair in Finance, 1993-1996.

Ohio State University; Riklis Chair in Business and its Environments, 1988-1993.

Ohio State University; Professor of Finance, 1985 to present.

University of Chicago; Visiting Professor of Finance, 1986-1987.

Appendix A

Massachusetts Institute of Technology; Visiting Associate Professor of Finance, Fall 1985.

Ohio State University; Associate Professor of Finance, 1983-1985.

University of Rochester; Assistant Professor of Finance and Economics, 1980-1983.

OTHER RELEVANT POSITIONS HELD

Research Associate, National Bureau of Economic Research (Asset Pricing Group and Corporate Finance Group).

Director, NBER Project on the Risks of Financial Institutions.

Chairman, Scientific Council, Swiss Finance Institute, 2006 to present.

Board of Directors, American Finance Association, 1988 to 2000, 2002 to 2006.

Consultant to the World Bank, the IMF, the NYSE, Federal Reserve Bank of New York, corporations, and law firms.

Expert testimony in federal courts, state courts, and domestic and international arbitrations.

Taught executives in Europe, Asia and North America (open enrollment as well as for firms; courses on risk management, banking, derivatives, corporate valuation, investments).

Advisory Committee, Morningstar, 2000-2002.

Director, Banque Bonhôte, 2002 to present.

Director, Weggelin Fund Management, 1999 to 2010.

President, Gamma Foundation, 2002 to present.

Director, Community First Financial Group, Inc., 2001 to 2010.

Director, Peninsula Banking Group, Inc., 2001 to 2010.

Trustee, Global Association of Risk Professionals, 2002 to present; Executive Committee, 2004 to present; Chair of Governance Committee, 2011 to present.

Chairman, Financial Risk Management Examination Certification Committee, Global Association of Risk Professionals, 2002 to present.

International Advisory Committee, NCCR, 2002 to present.

External Reviewer, London Business School Finance Department, 2005.

Appendix A

Financial Advisory Roundtable (FAR), Federal Reserve Bank of New York, 2006 to 2010.

Guest Contributor, Harvard Law School Corporate Governance Blog.

Squam Lake Group, member, 2008 to present.

Chairman, organizing committee, GARP – New York Federal Reserve Bank Global Risk Forum, 2012.

Chairman, organizing committee, GARP – Bank of England Global Risk Forum, 2012.

HONORS, SCHOLARSHIPS, AND FELLOWSHIPS

Advanced Researcher Fellowship, Swiss National Science Foundation, 1978-1980.

Dean's Research Professorship, Ohio State University, Spring 1984.

Pacesetter Research Award, Ohio State University, April 1986.

President-Elect (1993) and President (1994), International Economics and Finance Society.

Docteur Honoris Causa, University of Neuchâtel, Switzerland, 1998.

Eastern Finance Association Scholar Award, 1998.

Selected keynote speeches: Asia-Pacific Finance Association, Australasian Finance and Banking Conference, Bocconi Derivatives Annual Conference, Drexel Corporate Governance Conference, Eastern Finance Association, European Corporate Finance Institute, European Finance Association, European Financial Management Association, Financial Management Association European Conference, FDIC Annual Conference, Financial Management Association, Fourth Annual Conference on Asia-Pacific Financial Markets of the Korean Securities Association, French Finance Association, German Finance Association, Global Risk Institute, Midwest Finance Association, Notre Dame/SEC Conference, Northern Finance Association, Western Finance Association.

Assurant Lecture, Georgia Tech University, 2004.

Fellow, Financial Management Association, 2000.

Fellow, American Finance Association, 2005.

Fellow, European Corporate Governance Institute, 2005.

Vice-President (2002), Program Chair, (2003), President (2004), Western Finance Association.

Vice-President (2002), President-elect (2003), President (2004), American Finance Association.

Appendix A

Who's Who in Banking and Finance; Who's Who in Economics.

Jensen Prize for best article in Corporate Finance in the Journal of Financial Economics, 2000, 2008; runner-up, 2011.

William F. Sharpe Award for the best paper published in the Journal of Financial and Quantitative Analysis during the year 2003.

Selected by the magazine Treasury and Risk Management as one of the 100 most influential people in finance (June 2004).

René M. Stulz Scholar Development Fund, created in 2005 by former Ph.D. students.

Fama/DFA Prize for best article in Capital Markets and Asset Pricing in the Journal of Financial Economics, 2005.

Nominated for a Brattle Prize for best paper in Corporate Finance in the Journal of Finance in 2005.

Risk Who's Who, Charter Member, 2006.

Best paper, First Asian-Pacific Capital Markets Conference, Seoul, 2006.

Outstanding Academic Contribution to Corporate Governance Award, Drexel University, 2009.

Risk manager of the year award, Global Association of Risk Professionals, 2009.

Swiss Finance Institute/Banque Privée Espirito Santo Prize 2010.

CONGRESSIONAL TESTIMONY

"Over-the-Counter Derivatives Markets Act of 2009," testimony to the House Committee on Financial Services, October 2009.

"Oversight of the Mutual Fund Industry: Ensuring Market Stability and Investor Confidence," testimony to the Subcommittee on Capital Markets and Government Sponsored Enterprises, June 2011.

BOOKS

Risk Management and Derivatives, Southwestern College Publishing, 2003.

Handbook of the Economics of Finance, volumes 1 and 2, edited with George Constantinides and Milton Harris, North-Holland, 2003.

Appendix A

Handbook of the Economics of Finance, volumes 3 and 4, edited with George Constantinides and Milton Harris, North-Holland, 2012.

International Capital Markets, 3 volumes, edited with Andrew Karolyi, Edward Elgar, 2003.

Readings for the Financial Risk Manager, edited with Richard Apostolik, Wiley, 2004.

Readings for the Financial Risk Manager, edited with Richard Apostolik, Wiley, 2005.

The Risks of Financial Institutions, edited with Mark Carey, University of Chicago Press, 2006.

The Squam Lake Report: Fixing the Financial System, co-authored with the Squam Lake Group, Princeton University Press, 2010.

PUBLISHED PAPERS

"On the Effects of Barriers to International Investment," Journal of Finance, 1981, v36(4), 923-934, reprinted in Emerging Markets, Bekaert and Harvey, ed., Edward Elgar Publishing, 2004, 1-36.

"A Model of International Asset Pricing," Journal of Financial Economics, 1981, v9(4), 383-406.

"The Forward Exchange Rate and Macroeconomics," Journal of International Economics, 1982, v12(3/4), 285-299.

"Options on the Minimum or the Maximum of Two Risky Assets: Analysis and Applications," Journal of Financial Economics, 1982, v10(2), 161-185, reprinted in Options Markets, vol. 2, George Constantinides and A. G. Malliaris, eds., Edward Elgar Publishing, 2001.

"On the Determinants of Net Foreign Investment," Journal of Finance, 1983, v38(2), 459-468.

"The Demand for Foreign Bonds," Journal of International Economics, 1983, v15(3/4), 225-238.

"Optimal Hedging Policies," Journal of Financial and Quantitative Analysis, 1984, v19(2), 127-140.

"Currency Preferences, Purchasing Power Risks and the Determination of Exchange Rates in an Optimizing Model," Journal of Money, Credit and Banking, 1984, v16(3), 302-316; reprinted in Monetary Policy and Uncertainty, Manfred J. M. Neumann, ed., Nomos, 1986.

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"Pricing Capital Assets in an International Setting: An Introduction," *Journal of International Business Studies* (Winter 1984), 55-73; reprinted in *International Financial Management: Theory and Applications*, Donald R. Lessard, ed., John Wiley & Sons, 1985.

"Macroeconomic Time-Series, Business Cycles and Macroeconomic Policies," with Walter Wasserfallen, *Carnegie-Rochester Conference Series on Public Policy* (Spring 1985), 9-55.

"An Analysis of Secured Debt," with Herb Johnson, *Journal of Financial Economics*, 1985, v14(4), 501-522, reprinted in *The Debt Market*, vol. 3, Steve A. Ross, editor, Edward Elgar, 2000.

"The Determinants of Firm's Hedging Policies," with Clifford W. Smith, *Journal of Financial and Quantitative Analysis*, 1985, v20(4), 391-406; reprinted in *Studies in Financial Institutions: Commercial Banks*, C. James and C.W. Smith, eds., McGraw-Hill, 1993, and in *Corporate Hedging in Theory and Practice: Lessons from Metallgesellschaft*, Christopher L. Culp and Merton H. Miller, eds, Risk Publications, London, 1999.

"Asset Pricing and Expected Inflation," *Journal of Finance*, 1986, v41(1), 209-224.

"Risk Bearing, Labor Contracts and Capital Markets," with Patricia B. Reagan, *Research in Finance*, 1986, v6, 217-232.

"Interest Rates and Monetary Policy Uncertainty," *Journal of Monetary Economics*, 1986, v17(3), 331-348.

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"The Cost of Capital in Internationally Integrated Markets," *European Financial Management*, *European Financial Management*, 1995, 11-22.

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"Why Do Markets Move Together? An Investigation of U.S.-Japan Stock Return Comovements," with G. Andrew Karolyi, *Journal of Finance*, 1996, v51(3), 951-986.

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"Are Internal Capital Markets Efficient?," with Hyun-Han Shin, *Quarterly Journal of Economics*, 1998, v108(2), 531-552.

"The Determinants and Implications of Corporate Cash Holdings," with Tim Opler, Lee Pinkowitz, and Rohan Williamson, *Journal of Financial Economics*, 1999, v52(1), 3-46. A shortened version of this paper appeared as "Corporate Cash Holdings," *Journal of Applied Corporate Finance*, 2001 v14(1), 55-79.

"Do Foreign Investors Destabilize Stock Markets? The Korean Experience in 1997," with Hyuk Choe and Bong-Chan Kho, *Journal of Financial Economics*, 1999, v54(2), 227-264.

"The Underreaction Hypothesis and the New Issue Puzzle: Evidence from Japan," with Yong-Cheol Kim and Jun-Koo Kang, *Review of Financial Studies*, 1999, v12(3), 519-534.

"International Portfolio Flows and Security Markets", in *International Capital Flows*, edited by Martin Feldstein, University Chicago Press, 1999, 257-293; reprinted in *Emerging Markets*, Bekaert and Harvey, ed., Edward Elgar Publishing, 2004, 387-423.

"Globalization, Corporate Finance and the Cost of Capital," *Journal of Applied Corporate Finance*, 1999, v12(3), 8-25.

"Do Banking Shocks Affect Firm Performance? An Analysis of the Japanese Experience," with Jun-Koo Kang, *Journal of Business*, 2000, v73(1), 1-23.

"Banks, the IMF, and the Asian crisis," with Bong-Chan Kho, *Pacific Basin Finance Journal*, 2000, v8(2), 177-216.

"U.S. Banks, Crises, and Bailouts: From Mexico to LTCM," with Bong-Chan Kho and Dong Lee, *American Economic Review*, 2000, v90(2), 28-31.

"Financial Structure, Corporate Finance and Economic Growth," *International Review of Finance*, 2000, v1(1), 11-38.

Appendix A

"Merton Miller and Modern Finance," *Financial Management*, 2000, v29(4), 119-131. Reprinted in the *Journal of Applied Corporate Finance*, 2001(Winter), 8-20.

"International Competition and Exchange Rate Shocks: A Cross-Country Industry Analysis of Stock Returns," with John Griffin, *Review of Financial Studies*, 2001, v14(1), 215-241.

"Divestitures and the Liquidity of the Market for Corporate Assets," with Frederick Schlingemann and Ralph A. Walkling, *Journal of Financial Economics*, 2002, v64, 117-144, reprinted in *Corporate Restructuring*, Campbell and Denis, ed., Edward Elgar Publishing, 2005.

"Should we Fear Capital Flows?," in *International Financial Markets: The Challenge of Globalization*, Leonardo Auernheimer (Editor), University of Chicago Press, 2003, Chicago, Ill.

"Corporate Governance and the Home Bias," with Magnus Dahlquist, Lee Pinkowitz, and Rohan Williamson, *Journal of Financial and Quantitative Analysis*, 2003, v38(1), 87-110.

"Equity Market Liberalizations as Country IPOs," with Rodolfo Martell, *American Economic Review, Papers and Proceedings*, 2003, v93(2), 97-101.

"Culture, Openness, and Finance," with Rohan Williamson, *Journal of Financial Economics*, 2003, v70(3), 313-349.

"A New Approach to Measuring Financial Contagion," with Kee-Hong Bae and Andrew Karolyi, *Review of Financial Studies*, 2003, v16, 717-763.

"Are Assets Priced Locally or Globally?," with Andrew Karolyi, in Constantinides, George, Milton Harris and René Stulz (eds.), *The Handbook of the Economics of Finance*, North Holland, 2003.

"Why are Foreign Firms Listed in the U.S. Worth More?," with Craig Doidge and Andrew Karolyi, *Journal of Financial Economics*, 2004, v71(2), 205-238.

"Daily Cross-Border Flows: Pushed or Pulled?," with Frederico Nardari and John Griffin, *Review of Economics and Statistics*, 2004, v86(3), 641-657.

"Firm Size and the Gains from Acquisitions," with Sara Moeller and Frederick Schlingemann, *Journal of Financial Economics*, 2004, v73, 201-228, reprinted in *Corporate Takeovers: Modern Empirical Developments*, vol. 1, Espen Eckbo, ed., Elsevier, 2010.

"Should We Fear Derivatives?," *Journal of Economic Perspectives*, 2004, v18(3), 173-192.

"Wealth Destruction on a Massive Scale? A Study of Acquiring-Firm Returns in the Recent Merger Wave," with Sara Moeller and Frederick Schlingemann, *Journal of Finance*, 2005, v60(2), 757-782.

Appendix A

"Do Domestic Investors Have an Edge? The Trading Experience of Foreign Investors in Korea," with Hyuk Choe and Bong-Chan Kho, *Review of Financial Studies*, 2005, v18(3), 795-829.

"The Limits of Financial Globalization," *Journal of Finance*, 2005, v60(4), 1595-1638.

"Does the Contribution of Corporate Cash Holdings and Dividends to Firm Value Depend on Governance? A Cross-country Analysis," with Lee Pinkowitz and Rohan Williamson, *Journal of Finance*, 2006, v61(6), 2725-2751.

"Dividend Policy and the Earned/Contributed Capital Mix: a Test of the Life-Cycle Theory," with Harry DeAngelo and Linda DeAngelo, *Journal of Financial Economics*, 2006, v81(2), 227-254.

"Enterprise Risk Management: Theory and Practice," with Brian W. Nocco, *Journal of Applied Corporate Finance*, Fall 2006, v18(8), 8-20.

"Do Investors Trade More When Stocks Have Performed Well? Evidence from 46 Countries," with John M. Griffin and Federico Nardari, *Review of Financial Studies*, 2007, v20(3), 905-951.

"Why Do Firms Become Widely Held? An Analysis of the Dynamics of Corporate Ownership," with Jean Helwege and Christo Pirinsky, *Journal of Finance*, 2007, 62 (3), 995-1028.

"Hedge Funds: Past, Present, and Future," *Journal of Economic Perspectives*, 2007, v21(2), 175-194.

"The Economics of Conflicts of Interests in Financial Institutions," with Hamid Mehran, *Journal of Financial Economics*, 2007, v85(2), 267-296.

"Why Do Countries Matter So Much for Corporate Governance?," with Craig Doidge and Andrew Karolyi, *Journal of Financial Economics*, 2007, v86, 1-39.

"How Do Diversity of Opinion and Information Asymmetry Affect Acquirer Returns?," with Sara B. Moeller and Frederik P. Schlingemann, *Review of Financial Studies*, 2007, v20(6), 2047-2078.

"Do Local Analysts Know More? A Cross-Country Study of Performance of Local Analysts and Foreign Analysts," with Kee-Hong Bae and Hongping Tan, *Journal of Financial Economics*, 2008, v88(3), 581-606.

"Why Do Private Acquirers Pay So Little Compared to Public Acquirers?," with Leonce L. Barger, Frederik P. Schlingemann, and Chad J. Zutter, *Journal of Financial Economics*, 2008, v89(3), 375-390, reprinted in *Corporate Takeovers: Modern Empirical Developments*, vol. 1, Espen Eckbo, ed., Elsevier, 2010.

"Risk Management Failures: What Are They and When Do They Happen?," *Journal of Applied Corporate Finance*, 2008, v20(4), 39-48.

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"Private Benefits of Control, Ownership, and the Cross-Listing Decision," with Craig Doidge, G. Andrew Karolyi, Karl V. Lins, and Darius P. Miller, *Journal of Finance*, 2009, v64, 425-466.

"Has New York Become Less Competitive than London in Global Markets? Evaluating Foreign Listing Choices Over Time," with Craig Doidge, G. and G. Andrew Karolyi, *Journal of Financial Economics*, 2009, v91, 253-254.

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"Why Do Firms Leave U.S. Equity Markets?," with Craig Doidge and G. Andrew Karolyi, *Journal of Finance*, 2010, v65(4), 1507-1553.

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"When are Analyst Recommendation Changes Influential?," with Roger K. Loh, *Review of Financial Studies*, 2011, v24(2), 563-627.

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"Do Target CEOs Sell Out Their Shareholders to Keep Their Job in a Merger?," with Leonce L. Barger, Frederik P. Schlingemann, and Chad J. Zutter.

"The U.S. Left Behind: The Rise of IPO Activity Around the World," with Craig Doidge and Andrew Karolyi.

"Liquidity Shocks and Hedge Fund Contagion," with Nicole M. Boyson and Christof W. Stahel.

"Financial Policies, Investment, and the Financial Crisis: Impaired Credit Channel or Diminished Demand for Capital?," with Kathleen M. Kahle.

"Financial Policies and the Financial Crisis: How Important Was the Systemic Credit Contraction for Industrial Corporations?," with Kathleen Kahle.

"Are Acquisition Premiums Lower Because of Target CEOs' Conflicts of Interest?," with Leonce Barger, Frederik P. Schlingemann, and Chad J. Zutter.

Appendix A

“The Dark Side of Outside Directors: Do They Quit When They are Most Needed?,” with Rüdiger Fahlenbrach and Angie Low.

“Globalization, Country Governance, and Corporate Investment Decisions: An Analysis of Cross-Border Acquisitions” with Jesse Ellis, Sara B. Moeller, and Frederik P. Schlingemann.

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“Do U.S. Firms Have Abnormally High Cash Holdings,” with Lee Pinkowitz and Rohan Williamson.

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Advisory Editor, Journal of Investment Management, 2003 to present.

Advisory Editor, Journal of Financial Economics, 2000 to present.

Advisory Editor, Journal of Financial Services, 1999 to present.

Editor, Journal of Finance, 1988 to 2000.

Editor, Corporate Finance Abstracts, Social Science Research Network, 1998 to present.

Editor, Journal of Financial Economics, 1982 to 1987.

Board of Editors, Journal of Banking and Finance, 2008.

Co-Editor, Banking and Financial Institutions Abstracts, Social Science Research Network, 1998 to present.

Co-Editor, Financial Markets and Portfolio Management, 1999 to present.

Associate Editor, Journal of Risk, 2006 to present.

Board of Editors, Japan and the World Economy, 2006 to present.

Advisory Editor, The Review of Finance, 2003 to 2009.

Advisory Editor, Journal of Economic Perspectives, 2006 to 2008.

Associate Editor, Journal of Economic Perspectives, 2003 to 2005.

Associate Editor, Journal of Financial Abstracts, 1994 to 1998.

Associate Editor, Journal of Financial Economics, 1988 to 1999.

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Associate Editor, Journal of International Finance and Accounting, 1988 to present.

Associate Editor, Global Finance Journal, 1988 to present.

Associate Editor, Journal of International Financial Markets, Institutions and Money, 1989 to present.

Associate Editor, Journal of Fixed Income, 1991 to present.

Associate Editor, Journal of International Trade and Finance, 1992 to present.

Associate Editor, Journal of Financial and Quantitative Analysis, 1983 to 1985.

Acted as an ad hoc referee for AER, JIE, JAE, JFE, JME, JMCB, JFQA, QJE, JF, JB, JPE, Canadian Journal of Economics, Management Science, Marketing Science, Journal of International Money and Finance, Journal of International Business Studies, the Canadian NSF and the NSF.

Appendix B

REPORTS AND PRIOR TESTIMONY OF RENÉ M. STULZ

Case Name: Procter & Gamble Co. v. Bankers Trust Co.
Court: U.S. District Court, Cincinnati, OH
Date of Testimony: March, 1996 (Report)

Case Name: Danaher v. Acme-Cleveland
Court: U.S. District Court for the South District of Ohio
Date of Testimony: April, 1996 (Deposition)

Case Name: Community Hospital of Springfield and Clark County v. Kidder Peabody.
Court: NASD hearing
Date of Testimony: January, 1998 (Arbitration Hearing)

Case Name: Mckesson-HBOC v. Salomon Smith Barney
Court: U.S. District Court, Southern District of New York
Date of Testimony: September, 1999 (Report)

Case Name: Franklin Federal Savings Bank v. United States
Court: U.S. Court of Federal Claims
Date of Testimony: October, 1999 (Report), January, 2000 (Deposition), October, 2001 (Affidavit), September 2002 (Trial)

Case Name: WestFed Holdings, Inc., et al. v. United States
Court: U.S. Court of Federal Claims
Date of Testimony: April, 2000 (Report), July, 2000 (Deposition)

Case Name: Compagnie NOGA d'Importation et d'Exportation v. The Government of the Russian Federation (Arbitration)
Court: Arbitration Institute of the Stockholm Chamber of Commerce
Date of Testimony: August, 2000 (Report)
November, 2000 (Testimony)

Appendix B

Case Name: Stanford Square LLC v. Nomura Assets Capital Corporation
Case No.: 00 Civ. 1001
Date of Testimony: June, 2001 (Affidavit), March 2002 (Report), April 2002 (Deposition), July 2002 (Trial)

Case Name: Home Federal Bank of Tennessee, F.S.B. v. United States of America
Case No.: U.S. Court of Federal Claims
Date of Testimony: July, 2001 (Report), December, 2001 (Deposition)

Case Name: Charter Federal Savings Bank v. United States of America
Case No.: U.S. Court of Federal Claims
Date of Testimony: July, 2001 (Report), September, 2001 (Deposition)

Case Name: D&N Bank, a Federal Savings Bank, et. al. v. United States of America
Case No.: U.S. Court of Federal Claims
Date of Testimony: July, 2001 (Report), October, 2001 (Deposition)

Case Name: Mercury Insurance Company, et al. v. Martin H. Ruby, et al.
Case No.: U.S. District Court, Central District of California, Western Division
Date of Testimony: February, 2002 (Report)

Case Name: Credit Suisse First Boston Corporation, et al. v. ARM Financial Group, Inc., et al.
Case No.: U.S. District Court, Southern District of New York
Date of Testimony: February, 2002 (Report), March 2002 (Rebuttal Report) March 2002 (Deposition)

Case Name: Aucoven v. Venezuela
Case No.: International Center for Settlement of Investment Disputes
Date of Testimony: June 2002 (Report)
September 2002 (Rebuttal Report), October 2002 (Arbitration Hearing)

Case Name: K. Derhalli v. Lehman, et al.
Case No.: High Court of Justice, Commercial Division, London
Date of Testimony: August 2002 (Report), December 2002 (Joint Report)

Appendix B

Case Name: Richard Hanley et al. v. Warburg Pincus, et al.

Case No.: United States District Court for Arizona

Date of Testimony: September 2003 (Report)

Case Name: Marriott International Resorts, L.P. and Marriott International JBS Corporation v. The United States

Case No.: United States Court of Federal Claims, Nos. 01-256T and 01-257T

Date of Testimony: September 2003 (Report), December 2003 (Rebuttal Report), January 2004 (Deposition)

Case Name: FirePond IPO Securities Litigation

Case No.: United States District Court 01 Civ. 7048 (S.D.N.Y.)

Date of Testimony: February 2004 (Report), December 2007 (Report), February 2008 (Deposition)

Case Name: Corvis Securities Litigation

Case No.: United States District Court 03 Civ. 0590 (GEL)

Date of Testimony: October 2004 (Report)

Case Name: Bancorp Services, L.L.C. v. Zurich Insurance Company and others

Case No.: American Arbitration Association, No. 50T 180 002 04

Date of Testimony: February 2005 (Report), March 2005 (Arbitration Hearing)

Case Name: Bristol Myers Squibb Securities Litigation

Case No.: United States District Court Civil Action No. 00-1990 (SRC)

Date of Testimony: May 2005 (First declaration), May 2005 (Second declaration)

Case Name: Anglo American Security Fund and others v. S.R. Global International Fund and others

Case No.: Court of Chancery of the State of Delaware, C.A. No. 20066-NC

Date of Testimony: September 2005 (Report)

Case Name: Robert Ahearn and Almar Sales Company v. Credit Suisse First Boston

Case No.: United States District Court, Massachusetts, C.A. No. 03-CV-10956 (JLT)

Date of Testimony: December 2005 (Report)

Appendix B

Case Name: Asset Alliance v. Barry et al.
Case No.: American Arbitration Association, AA No. 13 169 Y 00224 03
Date of Testimony: December 2005 (Report); March 2005 (Rebuttal Report)

Case Name: PSEG Global Inc. et al. v. Republic of Turkey
Case No.: ICSID CASE NO. ARB/02/5
Date of Testimony: September 2005 (Report); March 2006 (Rebuttal Report); April 2006 (Arbitration hearing)

Case Name: In re Enron corporation securities, derivative, and “ERISA” litigation
Case No.: United States District Court, Southern District, Texas, MDL 1446
Date of Testimony: July 2006 (Report), October 2006 (Deposition)

Case Name: West Basin Municipal Water District v. Rice Financial et al.
Case No.: Superior Court of the State of California, BC 325420
Date of Testimony: September 2006 (Deposition)

Case Name: In re Salomon Analyst Metromedia Litigation
Case No.: United States District Court, Southern District of New York, No. 02-Civ-7966 (GEL)
Date of Testimony: December 2006 (Report)

Case Name: In re Lantronix Litigation
Case No.: United States District Court, Southern District of New York, No. 03-CV-2467 (JES)
Date of Testimony: February 2007 (Affidavit); April 2007 (Reply Declaration); October 2007 (Testimony)

Case Name: Toledo Blade Newspaper Unions - Blade Pension Plan, et al. v. Investment Performance Services, LLC, et al.
Case No.: 3:04-CV-7123 (N.D. Ohio)
Date of Testimony: April 2007 (Report), July 2007 (Deposition), September 2007 (Declaration)

Case Name: In Re Credit Suisse – AOL Securities Litigation
Case No.: United States District Court of Massachusetts, Case No. 1:02 CV 12146
Date of Testimony: April 2007 (Declaration), June 2007 (Deposition), April 2008 (Report), August 2008 (Deposition), July 2009 (Declaration)

Appendix B

- Case Name:** In re Parmalat Securities Litigation – Enrico Bondi v. Bank of America Corporation, *et al.*
Case No.: 05 CIV 4015 (LAK) (Southern District of New York)
Date of Testimony: May 2007 (Report), June 2007 (Rebuttal Report), August 2007 (Deposition)
- Case Name:** In re Parmalat Securities Litigation – Gerald K. Smith, as Litigation Trustee of the Farmland Dairies LLC Litigation Trust, v. Bank of America Corporation, *et al.*
Case No.: 06 CIV 0383 (LAK) (Southern District of New York)
Date of Testimony: May 2007 (Report), June 2007 (Rebuttal Report)
- Case Name:** In re Parmalat Securities Litigation – G. Peter Pappas, as the Plan Administrator of the Plan of Liquidation of Parmalat-USA Corporation, v. Bank of America Corporation, *et al.*
Case No.: 06 CIV 3109 (LAK) (Southern District of New York)
Date of Testimony: May 2007 (Report), June 2007 (Rebuttal Report), August 2007 (Deposition)
- Case Name:** In re Parmalat Securities Litigation – Class Action
Case No.: 04 CIV 0030 (LAK) (Southern District of New York)
Date of Testimony: May 2007 (Report), June 2007 (Rebuttal Report), August 2007 (Deposition)
- Case Name:** In re Parmalat Securities Litigation – Food Holdings Limited and Dairy Holdings Limited, acting by their Joint Official Liquidators, Gordon I. MacRae and G. James Cleaver, v. Bank of America Corporation, *et al.*
Case No.: 05 CIV 9934 (LAK) (Southern District of New York)
Date of Testimony: May 2007 (Report), June 2007 (Rebuttal Report), August 2007 (Deposition), August 2009 (Written Testimony), September 2009 (Testimony)
- Case Name:** In re Parmalat Securities Litigation – Parmalat Capital Finance Limited, acting by its Joint Official Liquidators, Gordon I. MacRae and G. James Cleaver, v. Bank of America Corporation, *et al.*
Case No.: 06 CIV 0074 (LAK) (Southern District of New York)
Date of Testimony: May 2007 (Report), June 2007 (Rebuttal Report), August 2007 (Deposition)
- Case Name:** McGill v. Board of Trade of the City of Chicago, Incorporated
Case No.: AAA No. 51 148 Y 01529 06
Date of Testimony: October 2007 (Report), January 2008 (Arbitration Testimony)

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Case Name: In re Enron Creditor Recovery Corp
Case No.: 01-16034 (AJG) (United State Bankruptcy Court, Southern District of New York)
Date of Testimony: January 2008 (Report), March 2008 (Deposition)

Case Name: In re Parmalat Securities Litigation – John Hancock Life Insurance Company *et al.*
Case No.: 04 MD 1653 (LAK) ECF Case (Southern District of New York)
Date of Testimony: February 2008 (Report)

Case Name: United States v. Ronald Ferguson *et al.*
Case No.: 3:06-CR-137(CFD) (United State District Court, District of Connecticut)
Date of Testimony: May 2008 (Report), June 2008 (Rebuttal), September 2008 (Supplemental Report)

Case Name: John Bruhl, Keith Rotman and Scott Maltz v. Price Waterhouse Coopers *et al.*
Case No.: 03-23044-CIV-MARA (United States District Court, Southern District of Florida)
Date of Testimony: July 2008 (Report), July 2008 (Deposition), August 2008 (Testimony)

Case Name: Robert Kelleher *et al.* v. ADVO, Inc., *et al.*
Case No.: 3:06-cv-01-422-AVC (United States District Court, District of Connecticut)
Date of Testimony: October 2008 (Report), November 2008 (Deposition)

Case Name: In Re BP Prudhoe Bay Royalty Trust
Case No.: C06-1505 MJP (United States District Court, Western District Court, Western District of Washington at Seattle)
Date of Testimony: November 2008 (Declaration)

Case Name: In Re Adelphia Communications Corp., *et al.* Debtors
Case No.: Case No. 02-41729 (REG) (United States Bankruptcy Court, Southern District of New York)
Date of Testimony: February 2009 (Report, Rebuttal Report), March 2009 (Deposition), August 2009 (Written Testimony), October 2009 (Trial)

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Case Name: In Re TOUSA, Inc., et al. vs. Citicorp North America, Inc., et al.
Case No.: 08-1435-JKO (United States Bankruptcy Court, Southern District of Florida, Fort Lauderdale Division)
Date of Testimony: May 2009 (Report), June 2009 (Deposition), July 2009 (Testimony)

Case Name: In Re Trigem America Corporation, Debtor
Case No.: 8-07-01140-TA (United States Bankruptcy Court for the Central District of California, Santa Ana Division)
Date of Testimony: June 2009 (Report), September 2009 (Report), October 2009 (Deposition), November 2009 (Deposition)

Case Name: In Re SADIA S.A. Securities Litigation
Case No.: 1:08-CV-09528 (United State District Court for the Southern District of New York)
Date of Testimony: March 2010 (Report), April 2010 (Deposition), May 2010 (Reply)

Case Name: Airbus UK Ltd v. Hawker Beechcraft Corp.
Case No.: ICC Case No. 16231-VRO
Date of Testimony: April 2010 (Report), June 2010 (Rebuttal), July 2010 (Arbitration)

Case Name: In Re Moody's Corporation Securities Litigation
Case No.: 07-cv-8375-GBD (United State District Court for the Southern District of New York)
Date of Testimony: May 2010 (Report), August 2010 (Deposition), October 2010 (Reply)

Case Name: Duration Capital Management Advisors, Inc. v. J.P. Morgan Securities, Inc. et al.
Case No.: 090400531 (Commonwealth of Pennsylvania, Court of Common Pleas, Philadelphia County, Commerce Program, April Term,
Date of Testimony: January 2011 (Report), April 2011 (Deposition), June 2011 (Supplemental Report)

Case Name: ABN AMRO BANK N.V., et al. against Eric Dinallo et al.
Case No.: Index No.: 601846/09 Supreme Court of the State of New York, County of New York
Date of Testimony: March 2011 (Affidavit), July 2011 (Deposition), March 2012 (Supplemental Affidavit), April 2012 (Deposition)

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Case Name: Allied Irish Banks, p.l.c., v. Bank of America, N.A., and Citibank N.A.
Case No.: Index No. 03 Civ. 3748 (DAB) (GWG) (United States District Court, Southern District of New York)
Date of Testimony: October 2011 (Report), December 2011 (Deposition), March 2012 (Declaration)

Case Name: Trustees of the Local 464A United Food and Commercial Workers Union Pension Fund et al. v. Wachovia Bank, N.A., et al.
Case No.: Civil Action No.: 2:09-cv-00668 (United States District Court, District of New Jersey)
Date of Testimony: December 2011 (Report), March 2012 (Deposition)

Case Name: In Re Bank of America Corp. Securities, Derivative, and Employee Retirement Income Security Act (ERISA) Litigation
Case No.: No. 09 MDL 2058 (PKC) (United States District Court, Southern District of New York)
Date of Testimony: April 2012 (Report), May 2012 (Deposition)

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- In Re: Moody's Corporation Securities Litigation, Opinion and Order of Judge Shirley Wohl Kram, U.S.D.J., filed February 23, 2009.
- In Re: Moody's Corporation Securities Litigation, Expert Report of René M. Stulz, Ph.D., filed May 28, 2010.
- In Re: Moody's Corporation Securities Litigation, Declaration of Daniel Hume in Further Support of Lead Plaintiffs' Motion for Class Certification, filed August 23, 2010.
- In Re: Moody's Corporation Securities Litigation, Deposition of Chad Coffman, October 7, 2010.
- In Re: Moody's Corporation Securities Litigation, Expert Reply Report of René M. Stulz, Ph.D., filed October 22, 2010.
- In Re: Moody's Corporation Securities Litigation, Declaration of Daniel Hume, filed November 5, 2010.
- In Re: Moody's Corporation Securities Litigation, Memorandum Decision and Order of Judge George B. Daniels, U.S.D.J., filed March 31, 2011.
- In Re: Moody's Corporation Securities Litigation, Expert Report of Chad Coffman, CFA, filed May 25, 2012, and corresponding backup materials.
- Selected documents considered for the Stulz May 2010 and October 2010 Reports, which are listed in Appendix C of the May 2010 Report and Appendix B of the October 2010 Report, respectively.
- Selected documents considered in Appendix A of the Coffman May 2012 Report.

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- “Democrats Turning To Credit Rating Agencies’ Role In Subprime Loan Crisis,” *CongressDaily/A.M.*, April 18, 2007.
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- “Moody’s Investors Service Announces Actions After Review of European CPDO Ratings Process,” *Moody’s Investors Service*, July 1, 2008.
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- “Recent Events in the Credit and Mortgage Markets and Possible Implications for U.S. Consumers and the Global Economy,” Committee on Financial Services, September 5, 2007.
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- “The Role of Credit Rating Agencies in the Structured Finance Market,” Subcommittee on Capital Markets, Insurance, and Government Sponsored Enterprises of the Committee on Financial Services, September 27, 2007.
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- “Term Asset-Backed Securities Loan Facility (TALF) Terms and Conditions,” Federal Reserve Board Website, <http://www.federalreserve.gov/newsevents/press/monetary/monetary20081125a1.pdf>, accessed June 27, 2012.

DATA SOURCES

- Bloomberg
 - Chicago Board Options Exchange Volatility Index, also available at: <http://www.cboe.com/publish/ScheduledTask/MktData/datahouse/vixcurrent.csv>.
 - Data for Euro-dollar spot rate
 - Index price data for the S&P 500 Financials Total Returns Index
 - Moody’s Corporation Implied Stock Price Volatility
 - Moody’s Corporation Opening Stock Price
 - S&P 500 Financials Index Members as of October 24, 2007
 - Stock, volume, and dividend data for Fimalac
- Capital IQ
 - S&P 500 Financials Index Members Quarterly Financial Data
- The Center for Research in Security Prices (“CRSP”)
 - Returns data for the NYSE/Amex/Nasdaq/Arca Composite Index
 - Stock and volume data for Moody’s Corporation and The McGraw Hill Companies
- CRE Finance Council Compendium of Statistics, July 9, 2010.
 - CMBS Delinquencies
- Inside Mortgage Finance Publications
 - Quarterly U.S. Prime, Alt-A, Subprime MBS Issuance Data

Appendix C

Documents Considered

- Moody's Investors Service
 - REAL Commercial Property Index
- Mortgage Bankers Association National Delinquency Survey, December 31, 2009.
 - Residential Delinquencies
 - Subprime Residential Delinquencies
- Thomson SDC
 - Monthly U.S. High Yield Corporate Debt Issuance
 - Monthly U.S. Investment Grade Corporate Debt Issuance
 - Monthly U.S. Syndicated Loan Issuance
- Securities Industry and Financial Markets Association ("SIFMA")
 - Quarterly U.S. ABS Issuance
 - Quarterly U.S. CDO Issuance
 - Quarterly U.S. Municipal Issuance
 - Quarterly U.S. Non-Agency CMBS and RMBS Issuance
- Standard & Poor's
 - Case-Shiller Home Price Indices
- Trade and Quote ("TAQ") Database
 - Intraday Stock Trade Price and Volume for Moody's Corporation, select dates

EXHIBIT 1

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

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IN RE: MOODY'S CORPORATION	:	
SECURITIES LITIGATION	:	
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EXPERT REPORT OF

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EVERETT D. REESE CHAIR OF
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May 28, 2010

EXHIBIT 1

I. Introduction	2
I.A. Qualifications.....	2
I.B. Assignment and Compensation.....	3
I.C. Documents Considered	3
I.D. Summary of Opinions and Outline of Report	3
II. Common Knowledge Regarding Credit Ratings and Potential Conflicts of Interest	5
II.A. Knowledge of rating methodologies – and rating limitations – was widespread before (and throughout) the purported Class Period	6
II.A.1. Limitations of credit ratings were well-known before the purported Class Period.....	6
II.A.2. Inherent limitations of structured finance rating methodologies were known before (and throughout) the purported Class Period	8
II.B. Knowledge of potential conflicts of interest was widespread before (and throughout) the purported Class Period	17
II.B.1. The potential “issuer-pays” conflict was widely discussed at all times	17
II.B.2. Potential conflicts of interest in structured finance ratings were widely discussed throughout the Class Period	20
II.C. Knowledge of the allegedly undisclosed or misrepresented information would have been widespread among putative class members	23
III. Materiality and Loss Causation	26
III.A. Plaintiffs fail to demonstrate that any alleged misrepresentation was material	26
III.B. Plaintiffs fail to present a basis to prove loss causation on a class-wide basis	30
III.B.1. The financial crisis during 2007 and 2008.....	31
III.B.2. Plaintiffs have not shown that the crisis was caused by Moody’s structured finance rating activity	36
III.B.3. Plaintiffs have not shown that the alleged misrepresentations caused Moody’s ratings actions during the crisis, or any related stock price drop	38
III.B.4. Plaintiffs fail to demonstrate that the decline in Moody’s stock price over the Class Period was due to alleged misrepresentations	41
III.B.5. Plaintiffs fail to demonstrate investors suffered any loss due to alleged corrective disclosures.....	45
III.B.6. Putative class members could be situated differently with respect to loss causation ..	54

I. Introduction

I.A. Qualifications

1. I hold the Everett D. Reese Chair in Money and Banking at the Ohio State University. I am also Director of the Dice Center for Research in Financial Economics at the Ohio State University and a Research Associate of the National Bureau of Economic Research in Cambridge, Massachusetts. Since receiving my Ph.D. in Economics from the Massachusetts Institute of Technology in 1980, I have taught at the Massachusetts Institute of Technology, the University of Rochester, the University of Chicago, and the Ohio State University. I was a Bower Fellow at the Harvard Business School from 1996 to 1997.
2. I am an expert in financial economics. I am a past president of the American Finance Association, a fellow of the American Finance Association and of the Financial Management Association, and a past president of the Western Finance Association. I received a Doctorate Honoris Causa from the University of Neuchâtel in Switzerland. I have also been recognized by a number of organizations for my contributions to financial economics by awards or by invitations to be a keynote speaker. I belong to the editorial boards of more than ten academic and practitioner publications. I was editor of the *Journal of Finance* for 12 years and co-editor of the *Journal of Financial Economics* for five years. I serve on the boards of the Community First Financial Group, Banque Bonhôte, and Weggelin Fund Management, as well as on the board of trustees of the Global Association of Risk Professionals. I have been a consultant for the IMF, the World Bank, the New York Stock Exchange, the Federal Reserve Bank of New York, corporations, and law firms. I have published more than 60 articles on issues in financial economics, authored a textbook on derivatives and risk management, and edited several books.
3. A copy of my curriculum vitae is attached as Appendix A, which includes my publications over the last ten years. A list of all cases in which I have provided testimony in the last four years is attached as Appendix B.

I.B. Assignment and Compensation

4. I have been retained by Moody's Corporation ("Moody's") to evaluate as a financial economist whether there is a reliable basis for Plaintiffs to assert that the alleged misstatements are material, caused the claimed losses to Moody's shareholders, and were unknown to or relied upon by the members of the class proposed by the Plaintiffs.
5. The analysis and opinions expressed in this report are my own. I am being compensated for my time and services at my regular hourly rate of \$750. I also receive periodic compensation from Cornerstone Research, the firm that assists me on this matter and with which I have a longstanding relationship. Those payments are made entirely at Cornerstone Research's discretion, and my understanding is that they are based generally on my services for and work with Cornerstone Research, including, in particular, the level of fees that Cornerstone Research generated on matters in which they provided support to me. I understand that those payments are in no way based on the content of my opinions or the outcome of any matter. My work in this matter is ongoing.

I.C. Documents Considered

6. In undertaking this assignment, I have considered documents and data related to issues in this case. These materials are listed in Appendix C. I reserve the right to supplement my opinions in this matter in the event that additional information or arguments are provided.

I.D. Summary of Opinions and Outline of Report

7. It was well-known before and throughout the purported Class Period that ratings of structured products are heavily reliant on forecasts of future outcomes based on historical data and quantitative models. It was also known (and regulators warned) that there was model risk in ratings of structured products, i.e., the risk that model imperfections could turn out to materially affect ratings. Methodological limitations were known to have applied to Moody's evaluation of subprime-related securities.

EXHIBIT 1

8. It was also widely known before the putative Class Period that potential conflicts of interest were an inherent characteristic of the rating agencies' issuer-pays model. Market participants were well aware that potential inherent conflicts of interest would not be eliminated. Plaintiffs assert that distinct features of the structured finance market (and structured finance rating practices) exacerbated conflicts of interest. However, these features too were obvious and knowledge of them was widespread.
9. If Plaintiffs' allegations were correct, the alleged fraud would have been known by market participants during the Class Period. In an efficient market, the valuation impact of a fraud that is known by many market participants is rapidly incorporated in the stock price by the trading of these market participants. Therefore, in such a market, the alleged fraud cannot have a lasting inflationary effect on the stock price. If the alleged fraud was not incorporated in the stock price, on the other hand, this would indicate that the market for Moody's stock was not efficient. In any case, since the investors who knew of the alleged fraud would not have relied upon Moody's alleged misrepresentations (whether or not they were incorporated in the stock price), reliance cannot be established for a potentially large portion of the putative class proposed by the Plaintiffs.
10. Plaintiffs' general allegations regarding Moody's structured finance ratings are inconsistent with evidence in financial economics about the properties of credit ratings, about how rating methodologies evolve over time, and about the determination of ratings of structured finance products. Specifically, unexpected rating downgrades and methodology improvements do not mean that Moody's had been systematically overrating structured products due to conflicts of interest, which allegedly caused the "collapse" of the structured finance market.
11. Plaintiffs fail to present any evidence that the decline in Moody's stock price that began in the fall of 2007 was caused by disclosures correcting alleged misstatements, rather than an unexpected and unprecedented financial crisis that was outside of Moody's control. Plaintiffs have not provided scientific evidence that the alleged misstatements

inflated Moody's stock price, nor have they shown that there were disclosures that cured alleged misstatements and caused investor losses.

12. Plaintiffs fail to demonstrate that loss causation is common to all class members and that lead Plaintiffs' claims are typical of other potential class members. The proposed class includes investors who sold their shares before alleged disclosure dates.
13. This report is organized as follows. In Section II, I discuss how there was widespread knowledge of the limitations of credit ratings generally (and structured finance ratings specifically), as well as knowledge of the potential for conflicts of interest, before and throughout the purported Class Period. The section will also address how semi-private knowledge about a firm can be expected to impact the stock price of that firm, and how such knowledge is likely to be transmitted to other market participants. In Section III, I address materiality and loss causation and show that, from the perspective of a financial economist, Plaintiffs have not scientifically demonstrated either in this matter.

II. Common Knowledge Regarding Credit Ratings and Potential Conflicts of Interest

14. Plaintiffs allege that Moody's made fraudulent misrepresentations regarding its independence and its rating methodologies for structured finance products.¹ However, as I will show in this section, key features of the alleged fraud were publicly discussed before (and throughout) the purported Class Period. Additionally, as issuers and underwriters of structured finance securities – agents in Plaintiffs' alleged scheme – also traded Moody's stock and are members of the putative class, more nuanced knowledge of the alleged fraud would necessarily have diffused through various avenues to other market participants and become widespread. Because of this widespread knowledge, a financial economist would expect that any impact of the

¹ Specifically, Moody's allegedly made material misrepresentations that the company, (1) "was an 'independent' and 'objective' provider of credit ratings," (2) "had adequately managed and/or eliminated the potential conflicts of interest," (3) "issued credit ratings that reflected all known relevant information," and (4) "evaluated the quality of originator practices as part of its rating methodology." Lead Plaintiffs' Memorandum of Law in Support of Motion for Class Certification ("Memorandum for Class Certification"), filed January 22, 2010, pp. 5-9. In Re Moody's Corporation Securities Litigation, Consolidated Amended Complaint ("Complaint"), filed June 27, 2008.

alleged fraud would already have been reflected in Moody's stock price prior to Plaintiffs' alleged curative disclosures.²

II.A. Knowledge of rating methodologies – and rating limitations – was widespread before (and throughout) the purported Class Period

II.A.1. Limitations of credit ratings were well-known before the purported Class Period

15. Credit ratings have been scrutinized for a long time. A classic study by the National Bureau of Economic Research ("NBER") in 1958 investigated the industry to that point. The study found that "[a]s a general rule, the various rating systems were efficient in ranking issues within an industry but were less successful in judging default risks as between major industrial groups." Further, it pointed out a result that investors are familiar with, namely that "the market rating usually reflects changes in the credit standing of obligors more promptly than other ratings do."³

² I have not been asked to opine about whether the market for Moody's stock was efficient during the proposed Class Period. However, I have reviewed Plaintiffs' filings and note that their analysis is not sufficient to show market efficiency during the Class Period. According to a commonly cited authority on market efficiency, "[a]n efficient capital market is a market that is efficient in processing information. The prices of securities observed at any time are based on 'correct' evaluation of all information available at that time. In an efficient market, prices 'fully reflect' available information." See: Eugene F. Fama (1976), "Foundations of Finance: Portfolio Decisions and Securities Prices," *Basic Books, Inc.*, p. 133.

Plaintiffs posit factors derived from court decisions, often referred to as "*Cammer* factors," as bearing upon market efficiency (Memorandum for Class Certification, pp. 18-19). However, most of these factors — trading volume, analyst coverage, number of market makers, and eligibility to file form S-3 — are simply metrics that are generally satisfied by almost any security that trades on a major exchange; they are not tests of market efficiency. The fifth *Cammer* factor, in contrast, is the most critical test for market efficiency. It requires an assessment of whether new information is fully reflected in the stock price in a timely fashion. Plaintiffs' discussion of the fifth *Cammer* factor is deficient in at least two key respects. First, in discussing how Moody's stock price reacts to new information, they present only *raw* stock returns, without investigating whether such reaction was due to market effects and industry effects or was simply random noise. The second deficiency is that all of the example days Plaintiffs cite (October 24-25, 2007, April 11, 2008, and May 21, 2008) are at the close or even outside of the proposed Class Period. (Memorandum for Class Certification, p. 21.) Even if Plaintiffs had presented an appropriate scientific inquiry including abnormal returns, it seems that the question at hand is whether the market was efficient during the proposed Class Period when class members would have relied on the supposedly efficient pricing to make their investment decisions.

³ W. Braddock Hickman (1958), "Corporate Bond Quality and Investor Experience," *Princeton University Press*, pp. 13, 18. Since publication of the NBER study, a number of studies have come to similar conclusions: A firm's stock price, debt prices, and the credit-default swap premiums (periodic payments required from the buyers of such derivative instruments in order to be protected in an event of default) on debt for that firm often change to reflect an increase in default risk before that firm's credit rating reflects such a change. (John Hull, Mirela Predescu, and Alan White (2004), "The Relationship Between Credit Default Swap Spreads, Bond Yields, and Credit Rating Announcements," *Journal of Banking and Finance*, v28, pp. 2789 – 2811; Manfred Steiner and Volker G. Heinke (2001), "Event Study Concerning International Bond Price Effects of Credit Rating Actions" *International Journal of Finance and Economics*, v6, pp. 139 – 157). Statistical models of default prediction are also well-known to reflect changes in default risk ahead of rating changes (Edward I. Altman and Herbert A. Rijken (2006), "A Point-in-Time Perspective on Through-the-Cycle Ratings," *Financial Analysts Journal*, v62(1), pp. 54-70; Stephen Kealhofer (2003), "Quantifying Credit Risk I: Default Prediction," *Financial Analysts Journal*, v59, pp. 30-44).

EXHIBIT 1

16. The issues raised by the NBER study have beset the rating agencies ever since. Rating agencies have always been criticized for changing ratings slowly. The fact that they maintained Enron at investment grade until shortly before bankruptcy led to investor criticism and Congressional inquiries.⁴ A survey of institutional investors published in 2002 found that 71% of respondents “think the ratings on the corporate bonds that they buy lag the issuers’ creditworthiness at any given moment.”⁵
17. At least part of the reason for the lack of timeliness in rating changes is the fact that rating agencies aim for rating stability. They want an assessment of credit risk that is an accurate long-run assessment and one that is appropriate through the business cycle for a debt issue rather than the best possible assessment of the credit risk at a given point in time.⁶ As a result of this approach, default rates can vary sharply for a given rating because of industry or business cycle effects. For instance, the default rate of B-rated bonds was over 15% in 1991, a recession year, and almost zero in 2006, a growth year.⁷ The rating agencies have made every attempt to ensure that customers of ratings understand this and focus on the performance of ratings on average across the cycle rather than in a given year.⁸
18. Moreover, when there are strong unexpected adverse shocks to an industry, all firms in that industry will perform poorly, so that bonds initially rated Aa in that industry may

⁴ “Moody’s Investors Service plans to respond to criticism from investors by speeding up the process the oldest credit rating company uses to review and change ratings ... follow[ing] complaints Moody’s acted too slowly to downgrade Enron Corp. and other troubled companies. ... Enron had an investment-grade rating from Moody’s until four days before it filed for bankruptcy.” (“Moody’s May Change Credit Ratings Faster, More Often,” *Bloomberg*, January 18, 2002). “On March 20, 2002, the Senate Committee held a hearing – entitled ‘Rating the Raters: Enron and the Credit Rating Agencies’ – that focused on the role of credit rating agencies in the Enron collapse.” (“Report on the Role and Function of Credit Rating Agencies in the Operation of the Securities Markets,” U.S. Securities and Exchange Commission, January 2003, available at <http://www.sec.gov/news/studies/credratingreport0103.pdf>).

⁵ H. Kent Baker and Sattar A. Mansi, (2002), “Assessing Credit Rating Agencies By Bond Issuers And Institutional Investors,” *Journal of Business Finance & Accounting*, v29(9), pp. 1367-1398. See also: Edward I. Altman and Herbert A. Rijken (2004), “How Rating Agencies Achieve Rating Stability,” *Journal of Banking & Finance*, v28(11), pp. 2679-2714.

⁶ Frank J. Fabozzi (ed)(2001), “The Handbook of Fixed Income Securities,” 6th Edition, *McGraw-Hill*, p. 457; Edward I. Altman and Herbert A. Rijken (2006), “A Point-in-Time Perspective on Through-the-Cycle Ratings,” *Financial Analysts Journal*, v62(1), pp. 54-70.

⁷ “Moody’s Credit Policy – Maintaining Consistent Corporate Ratings Over Time,” *Moody’s Investors Service*, August 2008, p. 11.

⁸ See, for example: “Our published performance metrics generally relate to the two attributes of our ratings that we believe are the most important for market participants: accuracy ... and stability ...” (“Report on the Code of Professional Conduct,” *Moody’s Investors Service*, April 2006).

end up performing much more poorly than Baa-rated bonds in an industry that was not subject to the shock. At times, downgrades are endemic within an industry.⁹

19. The problems of slow rating adjustment and downgrade clustering within industries are inherent to the way ratings are defined and to the statistical properties of default losses. The existence of these problems, which were identified by the 1958 NBER study, cannot be attributed to the alleged conflicts of interest as the study predates the rating agencies' adoption of the issuer-pays business model in the 1970s.¹⁰
20. It is also well-known that ratings only measure creditworthiness, while bond prices depend on many other variables.¹¹ First, investors demand compensation to bear the risk of default in the form of an interest rate premium (or "risk premium"), and this premium can change sharply over time.¹² In financial economics, this compensation for credit risk depends on how a bond price co-moves with the prices of other bonds and other financial assets.¹³ Moody's ratings are not meant to provide information about this co-movement. Second, investors want to be compensated for risk associated with liquidity.¹⁴ Investors want to receive a higher yield for bonds that are (at risk of) becoming more difficult to trade. Liquidity risk is not addressed by credit ratings.¹⁵

II.A.2. Inherent limitations of structured finance rating methodologies were known before (and throughout) the purported Class Period

⁹ For example, this happened in the power, telephone, and technology industries following the collapse of Enron. ("Corporate Credit-Rating Cuts Reach Record This Year (Update 2)," *Bloomberg*, December 26, 2002).

¹⁰ "Moody's History", available at <http://www.moody's.com/moodys/cust/AboutMoody's/AboutMoody's.aspx?topic=history>.

¹¹ "Limitation to Use of Rating: ...As ratings are designed exclusively for the purpose of grading obligations according to their credit quality, they should not be used alone as a basis for investment operations. For example, they have no value in forecasting the direction of future trends of market price," available at: <http://v3.moody's.com/ratings-process/Ratings-Definitions/002002>.

¹² Eugene Fama and Kenneth French (1989), "Business Conditions and Expected Returns on Stocks and Bonds," *Journal of Financial Economics*, v25, p. 28.

¹³ A well-known model used by financial economists is the capital asset pricing model ("CAPM"). In this model, the risk premium on a security depends on how that security co-moves with the market (proxied by a broad equity index, for instance). Richard A. Brealey and Stewart C. Myers (2003), "Principles of Corporate Finance," 7th Edition, *McGraw-Hill*, pp.194-203.

¹⁴ See, for instance: Viral V. Acharya and Lasse H. Pedersen (2005), "Asset Pricing with Liquidity Risk," *Journal of Financial Economics*, v77, pp. 375-410.

¹⁵ See, for example: "CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY," available at: <http://www.moody's.com/moodys/cust/AboutMoody's/AboutMoody's.aspx?topic=copyright>.

EXHIBIT 1

21. Until the 1980s, most of the securities issued by companies and evaluated by rating agencies were corporate bonds. Since the early 1980s, a new segment of the bond market grew tremendously, reaching a historical peak in 2007. This segment is the market for structured finance. Though there are many definitions of structured finance, the one that corresponds most closely to what rating agencies call structured finance is that “it takes pools of undifferentiated risks – such as those contained in a portfolio of residential mortgages or credit card debts – and parcels them out into debt instruments with different risk profiles.”¹⁶ A more formal definition is given by the Bank for International Settlements (“BIS”), in a report published in 2005 before the start of the Class Period:

Structured finance instruments can be defined through three key characteristics: (1) *pooling* of assets (either cash-based or synthetically created); (2) *tranching* of liabilities that are backed by the asset pool (this property differentiates structured finance from traditional ‘pass-through’ securitisations); (3) *de-linking* of the credit risk of the collateral asset pool from the credit risk of the originator, usually through use of a finite-lived, standalone special purpose vehicle (SPV).¹⁷

22. Structured finance functions in a fundamentally different way from corporate finance. With structured finance, an entity is created to issue securities. This entity houses assets and issues multiple classes of securities. The assets can be loans, bonds, physical assets such as houses or airplanes, contractual claims, and so on. Issuers construct the classes of securities with the purpose of obtaining specific ratings at issue. The securities issued in the largest amount are designed to garner Aaa ratings. The whole construct is engineered with the specific purpose of achieving security issuances with a favorable rating mix.¹⁸

23. Exhibit 1 shows the dramatic growth of the securitization market over time, as well as the expansion of the structured finance market compared to the corporate debt and

¹⁶ “The Fundamentals Of Structured Finance Ratings,” *Standard & Poor’s*, August 23, 2007, p. 2.

¹⁷ “The Role of Ratings in Structured Finance: Issues and Implications,” *Bank for International Settlements, Committee on the Global Financial System*, January 2005, p. 5. The committee under whose umbrella this report was published is currently chaired by Donald L. Kohn, the Vice-Chairman of the Board of Governors of the Federal Reserve System and is charged with monitoring “developments in global financial markets for central bank Governors.” See: <http://www.bis.org/cgfs/index.htm>.

¹⁸ *Ibid.*, p. 1.

EXHIBIT 1

municipal bond issuance markets. Notably, the subprime mortgage securitization market grew dramatically as well. In 2000, only \$81 billion (approximately 3%) of the \$3 trillion of outstanding mortgage-backed securities (“MBS”) were backed by subprime mortgages. At the end of 2006, the amount of subprime mortgage-backed securities outstanding was \$732 billion, accounting for 13% of the total MBS outstanding (See Exhibit 2 for residential mortgage-backed security (“RMBS”) issuance after 2002).¹⁹

24. As discussed previously, the rating for a corporate bond measures only the creditworthiness of the bond and contains no information about other critical determinants of the risk of a bond. This is a well-known general property of credit ratings, and also applies to structured finance.²⁰ In times of market turmoil, the relative importance of these other risk factors increases, and thus market prices can change dramatically even with no change in the underlying creditworthiness of the instrument.²¹
25. Rating structured finance deals is technically challenging and requires making a large number of assumptions. Consider a securitization of subprime loans. The starting point is to forecast the statistical distribution of losses due to default on these mortgages over time. The estimated distribution can then be used to simulate possible outcomes for individual tranches of the securitization. Suppose for simplicity that in order to receive the Aaa rating, a tranche should have an expected loss of 0.006% or lower. Given the statistical distribution of losses to the assets in the trust, it is possible to find out the distribution of the losses that would accrue to a hypothetical Aaa-rated tranche (which

¹⁹ Alt-A mortgages have creditworthiness between prime and subprime mortgages. There were \$44 billion of Alt-A MBS outstanding in 2000. By the end of 2006, there were \$730 billion Alt-A MBS outstanding. (Gary Gorton (2008), “The Panic of 2007,” NBER Working Paper, pp. 8-9).

²⁰ “Ratings Definitions,” available at: <http://v3.moodys.com/ratings-process/Structured-Finance-Long-Term-Ratings/002002001007>.

²¹ See, for example: Ingo Fender and Martin Scheicher (2009), “The Pricing of Subprime Mortgage Risk in Good Times and Bad: Evidence from the ABX.HE Indices,” *Bank for International Settlements*, BIS Working Paper No. 279, p. 20: “While fundamental factors, such as indicators of housing market activity, have continued to exert an important influence on the subordinated ABX indices, the AA and AAA indices have tended to react more to the general deterioration of the financial market environment, such as declining risk appetite and market liquidity. These results underline the well-established view that risk premia are important components of observed prices for default-risky products, and that the relative importance of non-default risk factors will tend to increase in periods of strong repricing of credit risk.” See also: Francis A. Longstaff, Sanjay Mithal, and Eric Neis (2005), “Corporate Yield Spreads: Default Risk or Liquidity? New Evidence from the Credit Default Swap Market,” *The Journal of Finance*, v60(5), pp. 2213-2253.